National Institute for Health and Care Excellence

Draft for Consultation

Social, emotional and mental wellbeing in primary and secondary education

[G] Evidence review for Targeted Social and Emotional Support

NICE guideline <number>

Evidence reviews underpinning recommendations 1.4.1 to 1.4.7 in the NICE guideline

January 2022

Draft for Consultation

These evidence reviews were developed by the Public Health Internal Guidelines team

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ISBN:

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1.1 Review question

What is the effectiveness and cost-effectiveness of targeted interventions that aim to provide social and emotional support in children in primary education?

1.1.1 Introduction

Social and emotional skills are key during children and young people's development and may help to achieve positive outcomes in health, wellbeing and future success. Some children and young people may be 'struggling' to develop these skills and may be at risk of poor social, emotional and mental wellbeing outcomes. Targeted approaches aim to provide extra support for these children and young people.

1.1.2 PICOS table

Table 1: PICOS for social and emotional support in primary education

Population	Children (including those with SEND) in UK key stages 1 and 2 or equivalent in primary education
Intervention	Usual practice plus individual or small group interventions targeted at improving one or more social and emotional competencies, skills, or wellbeing.
Comparator	Usual practice (can include waiting list or no intervention)
Outcomes	Social and emotional wellbeing outcomes: Any validated measure of mental, social, emotional or psychological wellbeing categorised as: • Social and emotional skills and attitudes (such as knowledge) • Emotional distress (such as depression, anxiety and stress) • Behavioural outcomes that are observed (such as positive social behaviour; conduct problems) Academic outcomes: Academic progress and attainment
Study type	• Randomised controlled trials • Non-randomised comparative studies

1.1.3 Methods and process

This evidence review was developed using the methods and process described in Developing NICE guidelines: the manual and in the methods chapter. Methods specific to this review question are described in the review protocol in Appendix A.

Declarations of interest were recorded according to NICE's conflicts of interest policy.

Methods specific to this review:

Timepoints

The most common timepoint for each outcome was used. Other timepoints, including baseline data was reported in the evidence table for information only.

Outcome measures

Where social and emotional outcome measures were reported in a study from multiple sources, the data used followed the following hierarchy of preference:

1. Child/ student reported
2. Teacher reported
3. Parent reported

However, for behavioural outcomes, measures reported by teachers were the preferred option as they are generally outcomes that are observed.

Cluster randomised controlled trials

Where cluster randomised controlled trials have been pooled with individually randomised controlled trials, the number of people included in the analysis from these trials have been adjusted using a reported or imputed intra-class correlation coefficient (ICC) for that outcome.1.1.4 Evidence

Included studies

In total 47,322 references were identified through systematic searches after duplicates were removed. Of these, 248 references were considered relevant, based on title and abstract, to the protocols for targeted social and emotional interventions and targeted mental health interventions in schools and were ordered. A total of 58 references were included across both reviews and 190 references were excluded.

Of the 58 references, a total of 9 studies were included for targeted social and emotional interventions in primary education. Of these studies, 2 were individual randomised controlled trials, 1 was a cluster randomised controlled trial and 6 were non-randomised studies. See the summary of studies (Table 2) included in this review and a brief outline of the interventions in these studies (Table 3). See Appendix D for full evidence tables.

Summary of studies identified

Table 2: Summary of studies included in RQ4.1a

Study [Country]	Study design	Setting	Population	Intervention	Comparator	Outcome(s)
Humphrey 2010a [UK]	Non RCT	37 Primary schools in England	Children who were considered as needing extra support by school staff. Defined as those who 'might feel they don't belong in the class group'. (N= 182)	New Beginnings	Naturally occurring comparison group	**Social and emotional wellbeing outcomes** • SDQ (emotional symptoms, conduct problems, hyperactivity, peer problems) total • SDQ (Prosocial subscale) **Academic outcomes** Not reported
Humphrey 2010b [UK]	Non RCT	22 primary schools in 12 Local Authorities in England	Children identified by school staff as needing extra support if they appeared uninterested in learning and unmotivated to achieve in school. (N= 191)	Going for Goals	No intervention comparison group	**Social and emotional wellbeing outcomes** SDQ (emotional symptoms, conduct problems, hyperactivity, peer problems) total SDQ (Prosocial subscale) **Academic outcomes** Not reported
Knowler 2013 [UK]	RCT	4 Primary schools	Children identified by peer nomination measure of engagement in bullying behaviour (N= 45)	Emotional literacy program	Wait-list control	**Social and emotional wellbeing outcomes** • SDQ (emotional symptoms, conduct problems, hyperactivity, peer problems) total difficulties • SDQ (Prosocial total) **Academic outcomes** Not reported
McDaniel 2018 [USA]	Non RCT	Urban public elementary school	Children in grades 3 to 5, nominated by classroom teacher as displaying elevated levels of disruptive behaviour, and scores in the	Check-In/Check-Out (CICO) Coping Power (CP)	Usual education	**Social and emotional wellbeing outcomes** SDQ (emotional symptoms, conduct problems, hyperactivity, peer problems) total

Study [Country]	Study design	Setting	Population	Intervention	Comparator	Outcome(s)
			elevated or high risk categories on the Strengths and Difficulties Questionnaire (SDQ) screener in at least one deficit area. (N= 33)			SDQ (Prosocial subscale) Behaviour Assessment of Children in Schools (BASC-2) **Academic outcomes** Not reported
Powell 2008 [UK]	Non RCT	4 Primary schools in England	Children with special educational needs, emotional, behavioural and learning difficulties and those on the boundaries of being excluded. (N= 107)	The Self-Discovery Programme	Usual support	**Social and emotional wellbeing outcomes** SDQ (emotional symptoms, conduct problems, hyperactivity, peer problems) total Self-confidence Communication with peers Self-control Concentration/Attention skills **Academic outcomes** Not reported
Ratcliffe 2014 [Australia]	Non RCT	Mainstream metropolitan and regional schools	Children in key stage 2 with a confirmed or suspected diagnosis of Autistic Disorder, Asperger's Disorder or Pervasive Developmental Disorder, and no known intellectual disability. (N= 217)	Emotion-Based Social Skills Training (EBSST)	Control (not further described)	**Social and emotional wellbeing outcomes** SDQ (emotional symptoms, conduct problems, hyperactivity, peer problems) total Social skills **Academic outcomes** Not reported
Ratcliffe 2019 [Australia]	Non RCT	Mainstream metropolitan and regional schools	Children with diagnosis of any of the three Autism Spectrum Disorder subtypes: autistic disorder, Asperger's disorder, or pervasive developmental disorder and Mild Intellectual Disability, defined as an IQ of 50–55 to	Emotion-Based Social Skills Training (EBSST)	Waiting list	**Social and emotional wellbeing outcomes** Mental health difficulties Social skills improvement scale Emotional competence **Academic outcomes** Not reported

Study [Country]	Study design	Setting	Population	Intervention	Comparator	Outcome(s)
			70 and associated deficits in adaptive behaviour. (N= 75)			
Stoltz 2013 [Netherlands]	Cluster RCT	48 Elementary schools in two urban regions	Children with a T-score on externalizing scale Teacher Report Form (TRF) >60 indicating a (sub) clinical level of externalizing behaviour (N= 264)	Stay Cool Kids	Control (not further described)	**Social and emotional wellbeing outcomes** • Self-perception • Reactive aggression • Proactive aggression **Academic outcomes** Not reported
Walker 2009 [USA]	RCT	34 Elementary schools of the Albuquerque Public Schools (APS)	Students with externalising behaviour problems (N= 200)	The First Step to Success Intervention	Control (not further described)	**Social and emotional wellbeing outcomes** • Social Skills Rating System social subscale (SSRS-SS) • Social Skills Rating System problem behaviours subscale (SSRS-PB) **Academic outcomes** Not reported

Summary of interventions

Table 3: Summary of interventions for studies included in RQ4.1a

Brief name	Studies	Rationale, theory or goal	Materials used	Procedures used	Provider	Delivery method	Duration/ intensity	Treatment fidelity
Check-In/Check-Out (CICO)	McDaniel 2018	Critical features include: 1. Clearly defined behavioural expectations 2. Structured mechanism to provide feedback on behaviour	Daily Progress Report (DPR)	Daily behavioural goals are set in the DPR at 'check in'. Teachers score students 5 times throughout the day against their goals. If 80% of the goals are met at 'check out', students receive a	Class teacher	Individual	Twice daily (check-in and check-out) for 16 weeks.	The overall rate of check-in and check-out implementation was 78% (range 55% to 100%).

Brief name	Studies	Rationale, theory or goal	Materials used	Procedures used	Provider	Delivery method	Duration/ intensity	Treatment fidelity
		3.Increased opportunities for contingent rei nforcement 4. Positive social interactions between students and adults in the school.		reward negotiated at check in e.g. additional bonus points, extra computer time.				
Coping power (CP)	McDaniel 2018	Cognitive-behavioural int ervention for aggressive at-risk preadolescent children. Based on the contextual soci al cognitive model of childhood aggression that assumes: 1. Impaired social information processing putting children at risk for negative outcomes e.g. delinquency, substance abuse, in adolescence. 2. Parental risk factors are associated with childhood aggression and that changes in the	Not reported	1.16 CP lessons developed a foundation for teaching participants about their feelings. 2. 6 booster sessions at the start of the 2nd semester covered advanced skills and additional practice. 3. The final 4 CP lessons were condensed to 2 sessions.	Coping Power interven tionists	Small group, face to face	1 hour per week for 16 weeks, followed by 6 booster sessions	Overall implementatio n fidelity was 92% across all CP lessons observed (range 83% to 100%).

Brief name	Studies	Rationale, theory or goal	Materials used	Procedures used	Provider	Delivery method	Duration/ intensity	Treatment fidelity
		contextual social-cognitive processes can result in improved behavioural out comes during adolescence.						
Emotional literacy program	Knowler 2013	To increase levels of emotional literacy by reducing bullying and victimisation	Emotional literacy skills were taken from the Emotional Literacy Assessment and Intervention Ages 7-11 pack.	Focused on four sections: 1.Developing self-awareness 2. Learning about self-regulation 3.Enhancing empathy 4. Improving social skills.	Teaching aides	Small groups (2 groups of 5 children and 2 groups of 6 children).	12 weeks x 1 session lasting 45-60 mins.	Median session ratings were 'good' for 2 schools and 'very good' for the other 2 schools.
Emotion-Based Social Skills Training (EBSST)	Ratcliffe 2014 Ratcliffe 2019	EBSST draws on theories of emotional development and emotional intelligence to teach children with Autism Spectrum Disorder how to understand their own and other's emotions, emotional problem solving and emotional regulation skills It is based on psychoeducation and cognitive behaviour therapy	Manualised intervention with each session following a similar structure with visual supports including a visual schedule, rule chart and reward chart.	EBSST is divided into three 5-week modules, teaching skills in understanding own and others' emotions (module 1), emotional problem solving and theory of mind (module 2), and emotion regulation skills (module 3), following a developmental theoretical framework	School counsellors	Group	16 sessions overall consisting of weekly 90 min sessions for 5 consecutive weeks over 3 school terms (covering 3 modules in total), plus a follow-up booster session at 6-months post-treatment. Teachers and parent sessions delivered prior to and	2014 - None reported. 2019 - All school counsellors rated their adherence to the treatment manual as either 'closely' or 'very closely'.

Brief name	Studies	Rationale, theory or goal	Materials used	Procedures used	Provider	Delivery method	Duration/ intensity	Treatment fidelity
							following each module, and a booster session at 6-month follow-up.	
Going for Goals	Humphrey 2010b	To help children to take responsibility for their learning and to develop goal directed behaviour. To form a group that offers mutual support beyond the duration of the group	The SEAL small group work guidance (provides a range of 'off the shelf' core activities).	Group sessions following a standard format including warm up activities e.g. short games; core activity relating to the SEAL theme being addressed; reflection; and relaxation through guided exercises.	Teacher or learning mentor	Small groups	8 weeks x 45 mins sessions	None reported
New Beginnings	Humphrey 2010a	Facilitating children's personal development, by exploring key issues in depth, practicing new skills in a safe environment, developing their ways of relating to others, and promoting reflection	Not reported	Children explore feelings while learning shared models for "calming down" and "problem solving"' in standard format sessions run by a group facilitator.	Teaching assistant or learning mentor	Small groups	7 x weekly 45 min sessions	Not conducted/ not applicable
Stay Cool Kids	Stoltz 2013	Behaviour is seen as a result of 6 mental steps:	Exercises that focused on:	Training consisting of: Phase 1 1.Trainers investigating the child's specific	Certified Stay Cool	Individual, face to face	8 weekly sessions of 45 mins	99% of sessions were

Brief name	Studies	Rationale, theory or goal	Materials used	Procedures used	Provider	Delivery method	Duration/ intensity	Treatment fidelity
		1.Encoding of cues 2. Interpretation of these cues 3. Clarification of goals 4. Response access or construction 5. Response decision 6. Enacting selected responses.	1. Self-perception 2. Social cognitions 3. Anger management 4. Aggressive behaviour	needs and competencies. 2. Trainers choosing 2 exercises best suited to the individual child 3. Analysing the child's competencies resulting in an individual intervention plan. 4. Signing a contract between trainer and child Phase 2 5. Intervention delivery (based on tailored plan)]	Kids trainer			completed as intended Trainers changed the content of the training session in 6.5% of cases when the planned training session did not work for the specific child.
The First Step to Success Intervention	Walker 2009	Designed to address secondary prevention goals and outcomes	Not described	1.Days 1-5: Classroom intervention is explained and implemented by a behavioural coach. 2. Day 6: The teacher takes over with the support of the coach. 3. Day 10: The coach trains parents how to teach their child key school success skills at home (e.g. communication and sharing) over 5 weekly home visits 4. Children earn daily points by exhibiting positive behaviour in the classroom. 5. Final 10 days focus on maintaining the	Behavioural coach - Typically a counsellor, school psychologist, behaviour specialist or social worker.	Individual but in a group setting (target child was monitored in the classroom and at home)	30 programme days	Protocol adherence: Coach phase (84%) Teacher phase (82%) Quality of implementation (classroom component): Coach phase (85%) Teacher phase (80%)

Brief name	Studies	Rationale, theory or goal	Materials used	Procedures used	Provider	Delivery method	Duration/ intensity	Treatment fidelity
				child's improved behaviour.				
The Self-Discovery Programme	Powell 2008	A journey of discovery about self, increasing awareness of children's own body, thoughts emotions and behaviours. Provides practical skills and techniques to enhance emotional well-being and increase confidence in self-regulating emotions and behaviours.	None reported	The primary themes of the programme included sensory awareness, touch therapy (e.g. peer massage), yoga, breath work, communication and relaxation. Topics covered included: music, colour and food, the link between mind and body, breathing, positive thinking and choices.	Three holistic therapists	Group, face to face	12 weekly sessions lasting 45 minutes	None reported

1 Summary of effectiveness evidence

2

Group interventions delivered by school staff compared to usual practice

Patient or population: Children and young people with poor social, emotional and mental wellbeing
Settings: Primary education
Intervention: Group interventions delivered by school staff
Comparison: usual practice

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk **Usual practice**	Corresponding risk **Group interventions delivered by school staff**				
Social and emotional skills (Humphrey 2010a)		The mean social and emotional skills in the intervention groups was **5.12 higher** (2.09 to 8.15 higher)		182 (1 study)	⊕⊕⊖⊖ **low**[1]	
Social and emotional skills (Humphrey 2010b)		The mean social and emotional skills in the intervention groups was **1.3 higher** (1.69 lower to 4.29 higher)		191 (1 study)	⊕⊖⊖⊖ **very low**[2,3]	
Behavioural difficulties (Humphrey 2010a)		The mean behavioural difficulties in the intervention groups was **2.67 lower** (4.54 to 0.8 lower)		182 (1 study)	⊕⊕⊖⊖ **low**[1]	
Behavioural difficulties (Humphrey 2010b)		The mean behavioural difficulties in the intervention groups was **1.3 higher** (1.69 lower to 4.29 higher)		191 (1 study)	⊕⊖⊖⊖ **very low**[2,3]	
Prosocial behaviour (Humphrey 2010a)		The mean prosocial behaviour in the intervention groups was **0.09 higher** (0.46 lower to 0.64 higher)		182 (1 study)	⊕⊖⊖⊖ **very low**[1,3]	
Prosocial behaviour (Humphrey 2010b)		The mean prosocial behaviour in the intervention groups was **0.09 higher** (0.49 lower to 0.67 higher)		191 (1 study)	⊕⊖⊖⊖ **very low**[2,3]	
Social Skills (Ratcliffe 2019)		The mean social skills in the intervention groups was **3.61 higher** (3.29 lower to 10.51 higher)		55 (1 study)	⊕⊖⊖⊖ **very low**[2,3]	

Emotional competence (Ratcliffe 2019)		The mean emotional competence in the intervention groups was **18.4 higher** (4.97 to 31.83 higher)	57 (1 study)	⊕⊕⊖⊖ **low**[2]
Mental health difficulties (Ratcliffe 2019)		The mean mental health difficulties in the intervention groups was **11.5 lower** (26.42 lower to 3.42 higher)	57 (1)	See comment
Social Skills (Ratcliffe 2014)		The mean social skills in the intervention groups was **1.97 lower** (4.46 lower to 0.52 higher)	116 (1 study)	⊕⊖⊖⊖ **very low**[2,3]
Emotional competence (Ratcliffe 2014)		The mean emotional competence in the intervention groups was **15.57 higher** (8.35 to 22.79 higher)	128 (1 study)	⊕⊕⊖⊖ **low**[2]
Behavioural difficulties (Ratcliffe 2014)		The mean behavioural difficulties in the intervention groups was **1.97 lower** (4.46 lower to 0.52 higher)	116 (1 study)	⊕⊖⊖⊖ **very low**[2,3]
Behavioural difficulties (Knowler 2013)		The mean behavioural difficulties in the intervention groups was **0.66 higher** (263.36 lower to 264.68 higher)	45 (1 study)	⊕⊕⊖⊖ **low**[3,4]

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Study appraised as being at serious risk of bias. Study design was NRCT.
[2] Study appraised as being at moderate risk of bias. Study design was NRCT.
[3] Serious concerns as 95% CI crosses line of no effect
[4] Study appraised as having some risk of bias concerns

1

Group interventions delivered by specialists compared to usual practice

Patient or population: Children and young people with poor social, emotional and mental wellbeing
Settings: Primary education
Intervention: Group interventions delivered by specialists
Comparison: usual practice

Outcomes	Illustrative comparative risks* (95% CI) Assumed risk **Usual practice**	Corresponding risk **Group interventions delivered by specialists**	Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
Self-confidence (Powell 2008)		The mean self-confidence in the intervention groups was **0.26 higher** (0.21 lower to 0.73 higher)		108 (1 study)	⊕⊖⊖⊖ **very low**[1,2]	
Communication with peers (Powell 2008)		The mean communication with peers in the intervention groups was **0.14 higher** (0.37 lower to 0.65 higher)		108 (1 study)	⊕⊖⊖⊖ **very low**[1,2]	
Self-control (Powel 2008)		The mean self-control in the intervention groups was **0.16 higher** (0.41 lower to 0.73 higher)		108 (1 study)	⊕⊖⊖⊖ **very low**[1,2]	
Concentration/attention skills (Powell 2008)		The mean concentration/attention skills in the intervention groups was **0.39 higher** (0.14 lower to 0.92 higher)		108 (1 study)	⊕⊖⊖⊖ **very low**[1,2]	
Behavioural difficulties (Powel 2008)		The mean behavioural difficulties in the intervention groups was **0.76 lower** (3.2 lower to 1.68 higher)		108 (1 study)	⊕⊖⊖⊖ **very low**[1,2]	
Behavioural difficulties (Coping Power) (McDaniel 2018)		The mean behavioural difficulties (coping power) in the intervention groups was **1.77 lower** (2.69 to 0.85 lower)		176 (1 study)	⊕⊕⊖⊖ **low**[1]	
Prosocial behaviour (Coping Power) (McDaniel 2018)		The mean prosocial behaviour (coping power) in the intervention groups was **1 higher** (0.55 to 1.45 higher)		26 (1 study)	⊕⊕⊖⊖ **low**[1]	

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.

Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Study appraised as being at moderate risk of bias. Study design was NRCT.
[2] Serious concerns as 95% CI crosses line of no effect

1

Induvial interventions delivered by school staff compared to usual practice

Patient or population: Children and young people with poor social, emotional and mental wellbeing
Settings: Primary education
Intervention: Induvial interventions delivered by school staff
Comparison: usual practice

Outcomes	Illustrative comparative risks* (95% CI) Assumed risk Usual practice	Corresponding risk Induvial interventions delivered by school staff	Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
Social skills (Walker 2009)		The mean social skills (walker 2009) in the intervention groups was **8.6 higher** (5.29 to 11.91 higher)		200 (1 study)	⊕⊕⊖⊖ **low**[1]	
Problem behaviours (Walker 2009)		The mean problem behaviours (walker 2009) in the intervention groups was **5.8 lower** (9.05 to 2.55 lower)		200 (1 study)	⊕⊕⊖⊖ **low**[1]	
Prosocial behaviour (Check-In/Check-Out) (McDaniel 2018)		The mean prosocial behaviour (check-in/check-out) in the intervention groups was **0.83 higher** (0.17 to 1.49 higher)		20 (1 study)	⊕⊕⊖⊖ **low**[2]	
Prosocial behaviour (Check-In/Check-Out) (McDaniel 2018)		The mean prosocial behaviour (check-in/check-out) in the intervention groups was **0.83 higher** (0.17 to 1.49 higher)		20 (1 study)	⊕⊕⊖⊖ **low**[2]	

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.

Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Study appraised as having a high risk of bias
[2] Study appraised as being at moderate risk of bias. Study design was NRCT.

1

Individual interventions delivered by specialists compared to usual practice

Patient or population: Children and young people with poor social, emotional and mental wellbeing
Settings: Primary education
Intervention: Individual interventions delivered by specialists
Comparison: usual practice

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk **Usual practice**	Corresponding risk **Individual interventions delivered by specialists**				
Reactive aggression (Stoltz 2013)		The mean reactive aggression in the intervention groups was **0.17 lower** (0.42 lower to 0.08 higher)		264 (1 study)	⊕⊖⊖⊖ **very low**[1,2]	
Proactive aggression (Stoltz 2013)		The mean proactive aggression in the intervention groups was **0.27 lower** (0.48 to 0.06 lower)		264 (1 study)	⊕⊕⊖⊖ **low**[1]	
Self-perception (Stoltz 2013)		The mean self-perception in the intervention groups was **0.28 higher** (0.12 to 0.44 higher)		264 (1 study)	⊕⊖⊖⊖ **very low**[1,2]	

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Study appraised as having a high risk of bias
[2] Serious concerns as 95% CI crosses line of no effect

2

3

Excluded studies

See Appendix J for the full list of excluded studies.

1.1.5 Economic evidence

A guideline wide search of published cost-effectiveness evidence was carried out for review questions 1.1, 3.1, 4.1, 5.1 and 6.1. There were no eligible studies for RQ 4.1 or 6.1.

3504 records were assessed against eligibility criteria.

3433 records were excluded based on information in the title and abstract. Two reviewers assessed all the records. The level of agreement between the two reviewers was 100%.

The full-text papers of 71 documents were retrieved and assessed. Two reviewers assessed all full-text papers. The level of agreement between the two reviewers was 100%.

Included studies

No studies were eligible for inclusion.

Excluded studies

71 full text documents were excluded for this review question. The documents and their reasons for exclusion are listed in Appendix J.

1.1.6 Economic model

A bespoke economic model was developed (Coote et al 2021) to explore the costs and consequences of an intervention, or combination of interventions, that promote social, emotional and mental wellbeing in children and young people in primary and secondary education. It covers more than 1 evidence review in the guideline so the full write up is contained in a separate document (Evidence Review J) rather than Appendix I.

Study	Limitations	Applicability	Other comments	Incremental			Uncertainty
				Costs	Effects	Cost-effectiveness	
Coote [a] (2021) A cost-consequence and cost-benefit analysis of interventions to improve social, emotional and mental wellbeing in schools	Potentially serious limitations [b]	Directly applicable	A bespoke model was developed to capture the costs and consequences of an intervention, or combination of interventions, that promote social, emotional and mental wellbeing in children and young people in primary and secondary education. It is recommended that the model is used as a guide to explore the potential economic and wellbeing implications of interventions. The model was pre-populated with evidence from the NICE guideline reviews but it also allows users to adapt the perspective and input values and generate results, specific to the educational environment of interest.	**Costs of the intervention per person; £:** 17.71 **Total intervention cost; £** 3,542	**Relative Risk bullying perpetration** 0.98 (Assumes the intervention reduces bullying by 2%, 4 out of 200 individuals undergoing the intervention) **Utility value assigned to bullying** 0.06 **Length of utility benefit** 1 year **QALYs;** 4 x 0.06 = 0.24	**Net benefit; £:** 1,258	Sensitivity analyses showed that: • an increase in the intervention cost resulted in a reduction of net benefit • an increase in the number of students undergoing the intervention increased the net benefit • a reduction in the change in utility per student attributed to bullying below 0.044 would result in a negative net benefit

Study	Limitations	Applicability	Other comments	Incremental			Uncertainty
				Costs	Effects	Cost-effectiveness	
			A worked example was provided that considered an intervention for transition between schools and its impact on bullying perpetration. The example used a hypothetical cohort of 200 pupils, a 1-year time horizon and took a societal perspective.		**Monetary QALY; £:** 4,800 (using monetary equivalent per QALY of £20,000)		

Abbreviations: ICER: incremental cost-effectiveness ratio; NHS: National Health Service; PSS: Personal Social Service; QALY: quality-adjusted life-year

a. This economic model was developed for the current guideline update. Full details can be found in the separate economic modelling report.

b. Due to substantial variability in the interventions available and heterogeneity across schools it is neither possible, nor judicious, for this model to provide 'generalised' results.

1

2

1.1.7 Evidence statements

Economic evidence statements

There were no eligible published studies for RQ 4.1 on targeted interventions for social and emotional support.

- Coote (2021) aimed to quantify the costs and effectiveness, and hence the impact, of introducing a range of mental health and wellbeing interventions. The large range of interventions on offer and the circumstances in which the interventions are implemented made it difficult to draw robust conclusions regarding the effectiveness of interventions and associated economic impact.

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2 Targeted social and emotional support in secondary education

2.1 Review question

What is the effectiveness and cost-effectiveness of targeted interventions that aim to provide social and emotional support in children and young people in secondary and further education?

2.1.1 Introduction

Social and emotional skills are key during children and young people's development and may help to achieve positive outcomes in health, wellbeing and future success. Some children and young people may be 'struggling' to develop these skills and may be at risk of poor social, emotional and mental wellbeing outcomes. Targeted approaches aim to provide extra support for these children and young people.

2.1.2 PICOS table

Table 4: PICOS inclusion criteria for social and emotional support in secondary education

Population	Children and young people (including those with SEND) in UK key stages 3 to 4 or equivalent in secondary education Young people in post-16 education (further education) • up to the age of 18 or 19 for young people without SEND • up to the age of 25 for young people with SEND
Intervention	Usual practice plus individual or small group interventions targeted at improving one or more social and emotional competencies, skills or wellbeing
Comparator	Usual practice (can include waiting list or no intervention)
Outcomes	Social and emotional wellbeing outcomes: Any validated measure of mental, social, emotional or psychological wellbeing categorised as: • Social and emotional skills and attitudes (such as knowledge) • Emotional distress (such as depression, anxiety and stress) • Behavioural outcomes that are observed (such as positive social behaviour; conduct problems) Academic outcomes: Academic progress and attainment
Study design	• Randomised controlled trials • Non-randomised comparative studies

2.1.3 Methods and process

This evidence review was developed using the methods and process described in Developing NICE guidelines: the manual and in the methods chapter. Methods specific to this review question are described in the review protocol in Appendix A.

Declarations of interest were recorded according to NICE's conflicts of interest policy.

Methods specific to this review:

Timepoints

The most common timepoint for each outcome was used. Other timepoints, including baseline data was reported in the evidence table for information only.

Outcome measures

Where social and emotional outcome measures were reported in a study from multiple sources, the data used followed the following hierarchy of preference:

1. Child/ student reported
2. Teacher reported
3. Parent reported

However, for behavioural outcomes, measures reported by teachers were the preferred option as they are generally outcomes that are observed.

Meta-Analysis and GRADE

It was determined that there was too much heterogeneity between study populations and interventions for meta-analysis to be appropriate. Therefore, outcome data were presented as evidence statements only and quality of evidence was determined by risk of bias assessments rather than GRADE.

2.1.4 Evidence

Included studies

In total 47,322 references were identified through systematic searches after duplicates were removed. Of these, 248 references were considered relevant, based on title and abstract, to the protocols for targeted social and emotional interventions and targeted mental health interventions in schools and were ordered. A total of 58 references were included across both reviews and 190 references were excluded.

Of the 58 references, a total of 6 randomised controlled trials and 1 cluster randomised controlled trial were included for targeted social and emotional interventions in secondary education. See summary of studies (Table 5) included in this review and a brief outline of the interventions in these studies (Table 6). See Appendix D for full evidence tables.

1 Summary of studies identified

2 Table 5: Studies included in RQ4.1b

Study [Country]	Study design	Setting	Population	Intervention	Comparator	Outcome(s)
Bernal-Manrique 2020 [Colombia]	RCT	Middle-class private school	Pupils referred to the school psychologist for problems of social and school adaptation (N= 42)	Repetitive Negative Thinking-focused Acceptance and commitment therapy (RNT-focused ACT)	Waitlist control	Interpersonal conflict resolution Anxiety and depression
Cooper 2021 [UK]	RCT	Secondary schools	Pupils with moderate-to-severe levels of emotional symptoms. (N= 329)	School-based humanistic counselling (SBHC) + pastoral care as usual (PCAU)	Pastoral care as usual (PCAU)	SDQ (emotional symptoms, conduct problems, hyperactivity, peer problems) total Anxiety and depression Behavioural engagement School exclusions Unintended consequences
Franco 2016 [Spain]	RCT	Public high school	Key stage 4 students that had been sent to the counselling room	Mindfulness training psycho-educational programme	Waiting list	Impulsivity (total) Aggression (physical)

Study [Country]	Study design	Setting	Population	Intervention	Comparator	Outcome(s)
			more than 5 times during the first term of the school year due to the misbehaviour in the classroom. (N= 26)			
McQuillin 2021 [US]	RCT	Public middle school	Students that presented within the top 10% of behaviour infractions in the school. (N= 67)	Brief instrumental mentoring	Control (not further described)	Externalising behaviour Academic outcomes
Sanchez-Sansegundo 2020 [Spain]	cRCT	High schools offering alternative educational provision.	Pupils that were part of an alternative educational programme, (N= 142)	Reasoning and Rehabilitation V2	Waitlist control	Self-esteem
Squires 2012 [Not specified but probably UK]	RCT	High school	Pupils with externalising behaviours at risk of school exclusion. (N= 12)	CBT intervention	Usual school support	School problems Externalising score
te Brinke 2021 [The Netherlands]	RCT	High schools	A subclinical or clinical level of externalising problems as reported by teachers and average or above	Think Cool Act Cool emotion regulation training	Usual care	Externalising problems

Study [Country]	Study design	Setting	Population	Intervention	Comparator	Outcome(s)
			average intelligence. (N= 108)			

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2 **Summary of interventions**

3 **Table 6: Intervention details for included studies in RQ4.1b**

Brief name	Studies	Rationale, theory or goal	Materials used	Procedures used	Provider	Delivery method	Duration/ intensity	Treatment fidelity
Brief instrumental mentoring	McQuillin 2021	Principles and practices of motivational interviewing (MI)	A manual that guides program activities	Mentors use the process of MI to develop a positive working alliance with mentees and guide mentees toward school-related goals.	Undergraduates in a University honours program	Individual	10 x 45 min sessions over the 18-week semester	Fidelity was monitored by the supervisors and with the assistance of a school-based social worker, and by two advanced undergraduate students in psychology.
CBT intervention	Squires 2012	Draws heavily on ideas and materials from the Penn Resiliency Program and 'think good -	Not reported	Included: Increasing awareness of thoughts and how these link to behaviour; considering alternative	Study's second author and the school's pastoral manager.	Group	8 weeks x 1 hour session	Not reported

Brief name	Studies	Rationale, theory or goal	Materials used	Procedures used	Provider	Delivery method	Duration/ intensity	Treatment fidelity
		feel good' books		thoughts; differentiating between thoughts and beliefs; coping strategies and problem-solving skills				
Mindfulness training psycho-educational programme	Franco 2016	The goal is to attempt to let thoughts, feelings and sensations to be free to come and go, and accept any personal sensation and feeling that may arise spontaneously	Not reported	Learning and daily practice of a mindfulness technique called Meditacion Fluir	Not reported	Individual	10 weeks x 15 min session	Not reported
Reasoning and Rehabilitation V2	Sanchez-Sansegundo 2020	A cognitive skills programme that aims to address cognitive deficits and improve social and emotional	Not reported	Training of cognitive, attitudinal, emotional and behavioural characteristics that are associated with negative	Qualified trainers	Group	12 x 2 hour sessions over the course of 6 months	Not reported

Brief name	Studies	Rationale, theory or goal	Materials used	Procedures used	Provider	Delivery method	Duration/ intensity	Treatment fidelity
		skills in juvenile and adult population.		behaviours and mental health problems in youth and adult populations.				
Repetitive Negative Thinking-focused Acceptance and commitment therapy (RNT-focused ACT)	Bernal-Manrique 2020	Based on the relational frame theory's definition of psychological flexibility and previous similar protocols.	Not reported	Development of psychological flexibility.	First author (who was in the last year of her master's degree in clinical psychology)	Group	3 weeks x 75 min sessions	Not reported
School-based humanistic counselling (SBHC) + pastoral care as usual (PCAU)	Cooper 2021	Based on evidence-based competences for humanistic counselling with young people aged 11–18 years.	SBHC manual	A range of techniques, including active listening, empathic reflections, and inviting young people to express underlying emotions and needs.	Counsellors	Individual	10 weeks x 45-60 min sessions	Adherence to SBHC was assessed by two independent auditors by use of a young person's adapted version of the Person Centred and Experiential Psychotherapy Rating Scale. All counsellors

Brief name	Studies	Rationale, theory or goal	Materials used	Procedures used	Provider	Delivery method	Duration/ intensity	Treatment fidelity
								received one-to-one clinical supervision throughout the trial, approximately 1 h every 2 weeks.
Think Cool Act Cool emotion regulation training	te Brinke 2021	Based on elements of evidence-based treatments for adolescents with externalising problems targeting emotion regulation.	Training manual	The training consists of an introduction session and two modules (cognitive "Think Cool" and behavioural "Act Cool"). In the Think Cool module, steps are practiced through a cognitive approach, whereas the Act cool module uses a behavioural approach.	Experienced clinician (clinical psychologist or social worker)	Individual	5 x 45 min sessions	All sessions were audiotaped. Selected sessions were independently coded on two main components of treatment integrity.

1 Summary of effectiveness evidence

Group interventions delivered by specialists compared to usual practice

Patient or population: Children and young people with poor social, emotional and mental wellbeing
Settings: Secondary education
Intervention: Group interventions delivered by specialists
Comparison: usual practice

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk **Usual practice**	Corresponding risk **Group interventions delivered by specialists**				
Interpersonal conflict resolution (Bernal-Manrique 2020)		The mean interpersonal conflict resolution in the intervention groups was **25.45 higher** (21.27 to 29.63 higher)		42 (1 study)	⊕⊕⊖⊖ **low**[1]	
Externalising problems (te Brinke 2021)		The mean externalising problems in the intervention groups was **0.11 higher** (0.02 to 0.2 higher)		104 (1 study)	⊕⊕⊕⊖ **moderate**[2]	
Externalising behaviours (Squires 2012)		The mean externalising behaviours in the intervention groups was **3.2 lower** (15.76 lower to 9.36 higher)		10 (1 study)	⊕⊕⊖⊖ **low**[2,3]	
Self-esteem (Sanchez-Sansegundo 2020)		The mean self-esteem in the intervention groups was **6.53 higher** (3.68 to 9.38 higher)		69 (1 study)	⊕⊕⊖⊖ **low**[1]	
Anxiety and depression (Bernal-Manrique 2021)		The mean anxiety and depression in the intervention groups was **4.19 lower** (12.23 lower to 3.85 higher)		42 (1 study)	⊕⊖⊖⊖ **very low**[1,3]	

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Study appraised as having a high risk of bias
[2] Study appraised as having some risk of bias concerns
[3] Serious concerns as 95% CI crosses line of no effect

1

Individual interventions delivered by specialists compared to usual practice

Patient or population: Children and young people with poor social, emotional and mental wellbeing
Settings: Secondary education
Intervention: Individual interventions delivered by specialists
Comparison: usual practice

Outcomes	Illustrative comparative risks* (95% CI) Assumed risk Usual practice	Corresponding risk Individual interventions delivered by specialists	Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
Externalising symptoms (McQuillin 2021)		The mean externalising symptoms in the intervention groups was **2.9 higher** (6.34 lower to 12.14 higher)		67 (1 study)	⊕⊕⊖⊖ **low**[1,2]	
Anxiety and depression (Cooper 2021)		The mean anxiety and depression in the intervention groups was **1.84 lower** (4.68 lower to 1 higher)		305 (1 study)	⊕⊕⊖⊖ **low**[1,2]	
Academic outcomes (math scores) (McQuillin 2021)		The mean academic outcomes (math scores) in the intervention groups was **4.1 higher** (2.37 lower to 10.57 higher)		67 (1 study)	⊕⊕⊖⊖ **low**[1,2]	
Externalising symptoms (McQuillin 2021)		The mean externalising symptoms in the intervention groups was **2.9 higher** (6.34 lower to 12.14 higher)		67 (1 study)	⊕⊕⊖⊖ **low**[1,2]	
School exclusions (Cooper 2021)		The mean school exclusions in the intervention groups was **0.03 lower** (0.16 lower to 0.1 higher)		301 (1 study)	⊕⊕⊖⊖ **low**[1,2]	

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.

Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Study appraised as having some risk of bias concerns
[2] Serious concerns as 95% CI crosses line of no effect

1

Individual interventions delivered by an unspecified provider compared to usual practice

Patient or population: Children and young people with poor social, emotional and mental wellbeing
Settings: Secondary education
Intervention: Individual interventions delivered by an unspecified provider
Comparison: usual practice

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk **Usual practice**	Corresponding risk **Individual interventions delivered by an unspecified provider**				
Aggression (Franco 2016)		The mean aggression in the intervention groups was **2.7 lower** (5.96 lower to 0.56 higher)		27 (1 study)	⊕⊖⊖⊖ **very low**[1,2]	
Impulsivity (Franco 2016)		The mean impulsivity (franco 2016) in the intervention groups was **11.69 lower** (19.32 to 4.06 lower)		27 (1 study)	⊕⊕⊖⊖ **low**[1]	

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Study appraised as having a high risk of bias
[2] Serious concerns as 95% CI crosses line of no effect

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Excluded studies

See Appendix J for the full list of excluded studies.

2.1.5 Economic evidence

A guideline wide search of published cost-effectiveness evidence was carried out for review questions 1.1, 3.1, 4.1, 5.1 and 6.1. There were no eligible studies for RQ 4.1 or 6.1.

3504 records were assessed against eligibility criteria.

3433 records were excluded based on information in the title and abstract. Two reviewers assessed all the records. The level of agreement between the two reviewers was 100%.

The full-text papers of 71 documents were retrieved and assessed. Two reviewers assessed all full-text papers. The level of agreement between the two reviewers was 100%.

Included studies

No studies were eligible for inclusion.

Excluded studies

71 full text documents were excluded for this review question. The documents and their reasons for exclusion are listed in Appendix J.

2.1.6 Economic model

A bespoke economic model was developed (Coote et al 2021) to explore the costs and consequences of an intervention, or combination of interventions, that promote social, emotional and mental wellbeing in children and young people in primary and secondary education (see section 1.1.6). It covers more than 1 evidence review in the guideline so the full write up is contained in a separate document (Evidence Review J) rather than appendix I.

2.1.7 Evidence statements

Economic evidence statements

There were no eligible published studies for RQ 4.1 on targeted interventions for social and emotional support.

Coote (2021) aimed to quantify the costs and effectiveness, and hence the impact, of introducing a range of mental health and wellbeing interventions. The large range of interventions on offer and the circumstances in which the interventions are implemented made it difficult to draw robust conclusions regarding the effectiveness of interventions and associated economic impact.

3 Acceptability of targeted social and emotional support in primary and secondary education

3.1 Review question

RQ 4.2 Are targeted approaches to promoting social, emotional and mental wellbeing acceptable to those receiving them and to those delivering them?

3.1.1 Introduction

Social and emotional skills are key during children and young people's development and may help to achieve positive outcomes in health, wellbeing and future success. Some children may be experiencing subclinical signs and symptoms of mental health conditions and may be at risk of poor social, emotional and mental wellbeing outcomes. Targeted mental health support aims to provide extra support for these children and young people. This review aims to evaluate the views and experiences of those receiving and delivering the interventions to help understand what components or approaches are acceptable to them.

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3.1.2 PICOS table

Table 7: PICOS inclusion criteria for social and emotional support in primary, secondary and further education

Population	Children (including those with SEND) in UK key stages 1 and 2 or equivalent in primary education Children and young people (including those with SEND) in UK key stages 3 to 4 or equivalent in secondary education Young people in post-16 education (further education) • up to the age of 18 or 19 for young people without SEND • up to the age of 25 for young with SEND Other populations: • Teachers/practitioners delivering the interventions • Parents/Carers of children and young people receiving the interventions
Intervention	Usual practice plus individual or small group interventions targeted at improving one or more social and emotional competencies, skills or wellbeing.
Comparator	Not applicable
Outcomes	Views and experiences of: • teachers and practitioners delivering interventions • children and young people receiving interventions. • parents/carers of children and young people receiving the interventions
Study design	Quantitative (Survey) • Mixed-method studies with a quantitative component

	• Survey or other cross-sectional studies that report on barriers and facilitators to these interventions. Qualitative (Views and experiences) • Qualitative studies of interventions for example focus groups and interview-based studies or mixed-methods studies with a qualitative component

3.1.3 Methods and process

This evidence review was developed using the methods and process described in Developing NICE guidelines: the manual and in the methods chapter. Methods specific to this review question are described in the review protocol in Appendix A.

Declarations of interest were recorded according to NICE's conflicts of interest policy.

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3.1.4 Evidence

Included studies

In total 47,322 references were identified through systematic searches after duplicates were removed. Of these, 248 references were considered relevant, based on title and abstract, to the protocols for targeted social and emotional interventions and targeted mental health interventions in schools and were ordered. A total of 58 references were included across both reviews and 190 references were excluded.

Of the 58 references, a total of 4 studies were included for acceptability of targeted social and emotional support. See summary of studies (Table 8) included in this review and a summary of the key themes in these studies (Table 10). See Appendix D for full evidence tables.

1 **Summary of studies identified**

2 **Table 8: Studies included in RQ 4.2**

Study	Setting	Informants	Intervention	Method	Themes in study
Evans 2015 [UK]	Secondary school	Children and young people School staff (n=41)	Student Assistance programme (Targeted SEL small group)	Observation of support groups Focus groups	• Identification of target criteria • Negative labelling: inspiring resistance and rejection • Coveted labelling: claiming intervention capital • Peer group composition • Seeking safety: privileging the familiar over the strange • Deviancy amplification: re-negotiating friendship hierarchies
McGeechan 2019 [UK]	Secondary school	Children and young people School staff (n=38)	Mindfulness (Small group)	Semi-structured interviews Focus groups	• Enrolment and continued engagement in mindful practice • Stress reduction and improved coping skills • Discussing participation with those not part of the group • Implementation of mindfulness in schools • Maintaining the mindfulness course in the long term
Tucker 2013 [UK]	Secondary school	Children and young people School staff (n=60)	Targeted pastoral support (various)	Semi-structured interviews	• Developing targeted pastoral policies and practices • Identifying and responding to need • Focused pastoral interventions

Study	Setting	Informants	Intervention	Method	Themes in study
Wilding 2016 [UK]	Primary school	Parents (n=7)	Emotional Literacy Support Assistant [ELSA] (Small group)	Semi-structured interviews	• What is the ELSA programme? • Problem solver • The ELSA–child relationship • Social and emotional development • Transferable skills and resources • Improved home–school communication • What happens next?

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2 **Table 9: Summary of themes and findings**

Theme	Findings
Introducing the intervention to young people	• Engaging young people
Acceptability of the intervention content	• Use of materials
Acceptability of intervention delivery	• Working in groups
Acceptability of intervention provider	• Parents' perceptions of intervention provider
Effectiveness of the intervention	• Changes after the intervention • Continued engagement • Parents' perceptions
Communication with parents	• Talking to parents about participation • Keeping in contact with parents about the intervention
Unintended consequences	• Stigma • Reinforcement of problem behaviour • Creating new issues

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2 **Table 10: Summary of evidence identified for RQ 4.2**

Review theme summary	Studies contributing (study theme)	CERQual confidence rating	Supporting statements
Introducing the intervention to young people Some young people were initially hesitant to try mindfulness and generally had a lack of understanding about what was entailed. However, they were still willing to try it and found they began to enjoy it once they started. Other young people felt that they had no choice but to take part.	McGeechan 2019 (Enrolment and continued engagement in mindful practice)	Moderate confidence	*"Erm when she said it I had not a clue what it was [mindfulness], it was only the day when Samantha came over an' we like met her for the first time" (Student) [McGeechan 2019]* *"It's gonna be fun, and then when I got there it was fun and some people kept saying like when I was walking home kept saying 'it was boring, I didn't really like it' but then after that at the other lessons they were like 'oh I can't wait for it'" (Student) [McGeechan 2019]* *"Erm, we weren't asked, it was just kind of, we didn't really have a choice to be fair" (Student) [McGeechan 2019]*
Acceptability of the intervention content Teachers found that they had to alter the slides provided with the mindfulness intervention to make them more relevant to their groups. They also found that the content was often outdated or not age appropriate. Making changes to the materials meant that some teachers had to rely on their IT support.	McGeechan 2019 (Implementation of mindfulness in schools)	Moderate confidence	*"I had to go back (School I.T.) several times because either something hadn't worked or had been omitted or there was a video that I was missing or and I just, and I got to the point where I just thought I can't keep doing this, I feel embarrassed" (Teacher) [McGeechan 2019]*
Acceptability of intervention delivery Pastoral support designed to meet the needs of specific groups rather than individuals was sometimes deemed to be both necessary and desirable. Young people did value the opportunities provided to work in groups with other	Tucker 2013 (Focused pastoral interventions)	Moderate confidence	*"Working together in groups for difficult kids is so important … It's about the holistic young person equipped for dealing with their own problems … bridging the academic and the social gap. A child who can say what they think or believe not aggressively or followed by*

Review theme summary	Studies contributing (study theme)	CERQual confidence rating	Supporting statements
young people. However, other young people found working in groups challenging especially when feeling coerced into joining the group.			*kicking a chair over. Someone who can deal with their own problems and conflicts caused by others; we want them to be calm, collected and group situations allow them to develop those kind of skills." (Behaviour co-ordinator) [Tucker 2013]* *Groups were seen as 'really important in like getting yourself steady and talking about things that trouble you', 'making sense of stuff' and 'realising there are loads of people like me with problems' (Students) [Tucker 2013]* *"I hated it but they [teachers and parents] made me go; like it was anger management or being kicked out … so in the end I sat there and hardly Spoke". (Student) [Tucker 2013]*
Acceptability of intervention provider Almost all participants perceived the provision of a supportive relationship between an ELSA (trained support worker) to be a fundamental aim of the programme and essential to its effectiveness and valued its 'separateness' from usual school and family relationships.	Wilding 2016 (Problem solver; The ELSA–child relationship; Social and emotional development	Moderate confidence	*"talking to somebody outside the family"* *"somebody that doesn't know [her son]"; thus, "no one can judge him". (Parents) [Wilding 2016]*
Effectiveness of the intervention **Changes after the intervention** Young people found that mindfulness helped them to relax and taught them how to cope in stressful situations. This in turn helps with concentration in class which meant that were less likely to receive sanctions for their behaviour.	McGeechan 2019 (Stress reduction and improved coping skills; Enrolment and continued engagement in mindful practice)	High confidence	*"I would sort of like argue back, or retaliate. . . Like obviously not retaliate with hitting,but shouting. [Now] if my brothers or sisters are frustrating me, or I have had an argument with my mum or dad or something like that, I'll just go upstairs and like listen to the rain out of my window" (Students) [McGeechan 2019]*

Review theme summary	Studies contributing (study theme)	CERQual confidence rating	Supporting statements
They reported that they were also able to use the skills they learned at home. **Continued engagement** Many young people continued to practice mindfulness at home after the intervention was completed. Teachers agreed that there were potential benefits of mindfulness but felt that it was not the right approach for everyone. **Parents' perceptions** Parents described how the programme supported their child to regulate emotions. They noted improvements in social development such as relationships with friends and family and acknowledge the development of emotional literacy as a foundation for subsequent learning and coping strategies.	Wilding 2016 (Problem solver; Social and emotional development; Transferable skills and resources)		*""Sometimes I do [mindfulness at home, like when I am like mad or, like in a mood I do like 7–11 or the hand breathing and that really helps me [calm down]." (Student) McGeechan 2019]* *"Some of them are coming in and saying that 'I used it this week, I did [mindfulness] you know cause I got really annoyed at home, my brother was going to, you know, and I did it'. . . Others you might pass in the corridor and say 'how are you know; have you been doing?' 'Eh, what? Oh no don't bother with that. Or 'I've forgotten that'" (Teacher) [McGeechan 2019]* *"it's teaching her different ways of dealing with emotions and stress, anxiety, worries" (Parent) [Wilding 2016]* *"what I have seen is her using some of these strategies and some of the games they've been playing" (Parent) [Wilding 2016]*
Communication with parents **Talking to parents about participation** Young people spoke about the varying degrees to which they had discussed their participation in the mindfulness programme with their parents). Most young people did not think their parents were aware they were taking part despite parental consent being required. **Keeping in contact with parents about the intervention**	McGeechan 2019 (Discussing participation with those not part of the group) Wilding 2016	High confidence	*YP "Erm I don't even know if they know about it. Interviewer 'If your parents did know you were doing it, what do you think they would think about it?'* *YP "Probablie's [sic] like it was good and that cause then if I ever get angry at them they know that I can calm down." [McGeechan 2019]* *"I think that it's good for the confidence, but apart from that I don't know what else they do" (Parent) [Wilding 2016]*

Review theme summary	Studies contributing (study theme)	CERQual confidence rating	Supporting statements
Parents were only able to discuss the aims of a particular intervention in terms of their child's individual needs rather than the broader aims of the programme. Schools need to provide parents with more information relating to the programme overview. They also felt there was generally little or no contact with the school throughout.	(What is the ELSA programme?)		*"I'd like a bit more support for the parents' side of it. I think that would make a lot of difference" (Parent) [Wilding 2016]* *"I did ask that I be kept in touch […] but nobody's phoned. That's the disappointing element to it" (Parent) [Wilding 2016]*
Unintended consequences **Stigma** Where targeting for intervention was due to behavioural problems, students experienced negative labelling. Even if the reasons were not made explicit, the students were able to work it out as other participants in the group were known to be 'naughty'. Because it is known that the school environment is built around the eradication of 'naughtiness', the students were aware of the negative connotations of labelling and felt that the school's desire was to exclude them. This in turn led to increased resistance to school and increased anti-school attitudes. However, where the reasons for targeting were focused on care and support students spoke of how fortunate they were and how they finally felt visible in a place where they had often been overlooked. **Reinforcement of problem behaviour**	Evans 2015 (Negative labelling: inspiring resistance and rejection; Coveted labelling: claiming intervention capital) Wilding 2016 (What happens next?)	High confidence	*"I said 'Alright Mr Evans, you picked the naughtiest in our year'. He goes 'no I didn't'. I went 'so what other kids mess around in our year that ain't in here. What other kids do? Literally?"* *"They want us out"* *"They want us out of lessons anyway"* *"I think it just makes us think more though that the teachers hate us."* *"Yeah, for picking us to be in this group* *(Students) [Evans 2015]* *"[She] said she felt lucky and special to have been chosen and it was a really good mix of people. She also felt that being with people she didn't really know made her realise that you don't know who has a problem, and in fact everyone has some problem or other. She said this made her feel better about herself and made her think that she wasn't the only one who was dealing with things." (Field notes) [Evans 2015]*

Review theme summary	Studies contributing (study theme)	CERQual confidence rating	Supporting statements
While initially the labelling was considered as undesirable for some students, they later recognised that this labelling could be used to renegotiate and strengthen their position within the broader peer group. It also means that in order to maintain this status, participants were less willing to listen to the intervention messages. They also debated who had 'rights to membership' in the group. **Creating new issues** Parents expressed uncertainty regarding the criteria used to determine when children were ready to move on from the programme.			*YP1: "Seriously it just gives you a little bit of respect.* *Interviewer:" Being naughty?"* *YP2: "Yeah, you're walking around the school and other people 'How you doing man'?"* *YP2: "And you can walk out and they're like 'BOOM' [snaps fingers]."(Students) [Evans 2015]* *YP3: "That's what I really want to know. Why [him]? He's never got in trouble." (Student) [Evans 2015]* *"I feel as if in some ways he's being kind of left in the class more now because he's sitting there […], whereas before he's been disruptive, now he's in a routine he'll probably sit there quietly and just daydream." (Parent) [Wilding 2016]*

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2 **Excluded studies**

3 See Appendix J for the full list of excluded studies.

4 Barriers and facilitators to targeted social and emotional support in primary and secondary education

4.1 Review question

RQ 4.3 What are the barriers and facilitators to using targeted approaches to promote social, emotional and mental wellbeing in children and young people?

4.1.1 Introduction

Social and emotional skills are key during children and young people's development and may help to achieve positive outcomes in health, wellbeing and future success. Some children and young people may be 'struggling' to develop these skills and may be at risk of poor social, emotional and mental wellbeing outcomes. Targeted approaches aim to provide extra support for these children and young people. This review aims to evaluate the views and experiences of barriers and facilitators from those receiving and delivering or implementing the interventions to help understand what prevents or facilitates effective implementation.

4.1.2 PICOS table

Table 11: PICOS inclusion criteria for social and emotional support in primary, secondary and further education

Population	Children (including those with SEND) in UK key stages 1 and 2 or equivalent in primary education Children and young people (including those with SEND) in UK key stages 3 to 4 or equivalent in secondary education Young people in post-16 education (further education) • up to the age of 18 or 19 for young people without SEND • up to the age of 25 for young people with SEND Other populations: • Teachers/practitioners delivering the interventions • Parents/Carers of children and young people receiving the interventions
Intervention	Usual practice plus individual or small group interventions targeted at improving one or more social and emotional competencies, skills or wellbeing
Comparator	Not applicable
Outcomes	Views and experiences on barriers and facilitators of: • teachers and practitioners delivering interventions • children and young people receiving interventions.

	• parents/carers of children and young people receiving the interventions
Study design	Quantitative (Survey) • Mixed-method studies with a quantitative component • Survey or other cross-sectional studies that report on barriers and facilitators to these interventions. Qualitative (Views and experiences) Qualitative studies of interventions for example focus groups and interview-based studies or mixed-methods studies with a qualitative component

4.1.3 Methods and process

This evidence review was developed using the methods and process described in Developing NICE guidelines: the manual and in the methods chapter. Methods specific to this review question are described in the review protocol in Appendix A. Declarations of interest were recorded according to NICE's conflicts of interest policy.

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4.1.4 Evidence

Included studies

In total 47,322 references were identified through systematic searches after duplicates were removed. Of these, 248 references were considered relevant, based on title and abstract, to the protocols for targeted social and emotional interventions and targeted mental health interventions in schools and were ordered. A total of 58 references were included across both reviews and 190 references were excluded.

Of the 58 references, a total of 3 studies were included for the review question on the barriers and facilitators of targeted social and emotional support. See the summary of studies (Table 12) included in this review and a summary of the key themes in these studies (Table 14). See Appendix D for full evidence tables.

Excluded studies

For a full list of excluded studies see Appendix J.

1 Summary of studies identified

2 Table 12: Studies included in RQ 4.3

Study	Setting	Informants	Intervention	Method	Themes in study
Evans 2015 [UK]	Secondary school	Children and young people School staff (n=41)	Student Assistance programme (Targeted SEL small group)	Observation of support groups Focus groups	• Identification of target criteria: Discipline • Peer group composition
McGeechan 2019 [UK]	Secondary school	Children and young people School staff (n=38)	Mindfulness (Small group)	Semi-structured interviews Focus groups	• Implementation of mindfulness in schools
Tucker 2013 [UK]	Secondary school	Children and young people School staff (n=60)	Targeted pastoral support (various)	Semi-structured interviews	• Developing targeted pastoral policies and practices

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4 Table 13: Summary of themes and findings

Theme	Findings
Identifying children and young people who may benefit from a targeted intervention: Barriers	• Inappropriate reasons to target
Planning the intervention: Barriers	• Practicality of group interventions • Group composition
Planning the intervention: Facilitators	• Group composition
Cost effectiveness	• Financial cost • The need for evidence of effectiveness

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2 **Table 14: Summary of evidence identified for RQ 4.3**

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Review theme summary	Studies contributing (study theme)	CERQual confidence rating	Supporting statements
Identifying children and young people who may benefit from a targeted intervention: Barriers • The intervention was intended to offer additional support to overlooked students with effort to be made in providing a positive targeting experience in order to avoid stigma. However, schools were using the interventions to eliminate problematic behaviours of challenging students who compromised academic learning of other students. These students were seen as undesirable in the classroom and there appears to be no effort to provide a positive targeting experience.	Evans 2015 (Identification by targeting criteria: Discipline)	Moderate confidence	*"And the eight boys are renowned for being uncontrollable in a classroom setting. And that's when they're split up. And to bring them all in one room, all together, is never thought of by some members of staff in the school" (School staff) [Evans 215]*
Planning the intervention: Barriers • Whilst teachers felt it was practical to deliver the interventions in groups it was recognised that this is logistically difficult, especially when needing to take the pupils out of class regularly. • The presence of existing friendship groups in the intervention group ensured that maintaining these relationships was more important that the intervention and students used them to protect themselves from the alien context of the intervention. They would also retreat within these friendship groups to defend them from the	McGeechan 2019 (Implementation of mindfulness in schools) Evans 2015 (Peer group composition)	Moderate confidence	*"If you can identify whether this five people I've just started counselling would all actually benefit from mindfulness then that is good for your caseload as well because you are seeing five people at once, so." (Teacher) [McGeechan 2019]* *"Got to find a time when you can get them all together. So, it's not easy. . . if I am seeing a student for a number of sessions, I would vary which lesson they come out of so they don't miss the same lesson every week. You do your best to do that whereas if you are going to do a group, you've really got to try it at the same time every week, you*

Review theme summary	Studies contributing (study theme)	CERQual confidence rating	Supporting statements
'uncool' socially isolated peers who had also been targeted.			*know it's harder then, to vary it, I think. So, it becomes a bit of, a bit of a nightmare" (Teacher) [McGeechan 2019]* *"Andrea asked that we tell our partner about a time when we were happy. I heard Nathan tell his partner about an online gaming community he had recently joined. His partner rolled her eyes and started to chat to a friend who sat next to her. Increasingly frustrated by her lack of interest or knowledge he became aggressive. Turning his chair he physically removed himself from the pairing. Joyce, the other facilitator, said she didn't understand what he was going on about either, and he needed to explain himself better if people were going to listen." (Field notes) [Evans 2015]*
Planning the intervention: Facilitators • A school that targeted students based on individual needs had more diverse groups. None of these individuals were bound by closely bonded friendships or entrenched behavioural norms. Endorsement of 'bad behaviours' did not feature in this group. Rather students behaved differently from how they habitually acted within the broader context of their lives.	Evans 2015 (Peer group composition)	Moderate confidence	*"Faye said that some friends she had argued with had been really horrible that morning and had asked her what she was wearing. She had told them that she was wearing the same as always and they said she looked awful. Once this had finished and nothing else seemed like it was going to emerge Emma asked us to excuse her while she went to get some paper. When she left Gemma turned to Faye and told her to stand up to the girls in order to make them stop. She said 'the next time they say that you should tell them you're wearing clothes and then walk off'. There were some furious nods and 'yeahs' around the group" (Field notes) [Evans 2015]*
Cost effectiveness: Barriers • Teachers noted that schools were generally supportive of trialling the mindfulness programme but once the schools had to pay to deliver the course there was a change in attitude	McGeechan 2019 (Implementation of mindfulness in schools)	High confidence	*"The head was all for it, or principal I should call him. Erm and then when I went to see him, with my colleague after, with a proposal, because there were a number of staff who were interested erm to do some training in school for staff,*

Review theme summary	Studies contributing (study theme)	CERQual confidence rating	Supporting statements
in management and alternative, cheaper programmes were sought. • Teachers discussed the need for evidence that an intervention (mindfulness) would be of long-term benefit to a significant number of students for the school to revisit the idea of commissioning the service. However, this relies on the teachers gathering this evidence. Some teaching staff were sceptical about the likely long-term impact of targeted approaches. They were seen as potentially 'divisive', 'counter-productive as it might appear to reward poor behaviour with treats' and dangerous in terms of stereotyping some kids and their families'	Tucker 2013 (Developing targeted pastoral policies and practices		*he said there was no money left in the budget, so, sorry" (Teacher) [McGeechan 2019]* *"Well this is a few months ago, but, you know and then it was, well if that's what you want come back to me with another proposal, and another plan to show me what the benefits are going to be, and how many kids it's going to impact, and how many, you know, well I haven't got around to do that yet" (Teacher) [McGeechan 2019]* *"a top–down approach to funding backed by coherent, properly costed policies. You can't have built a strategy up and develop whole staff buy-in and then cut resources when times get rough … That's happened too often in the past. You have to all believe that a strong pastoral policy will pay off in terms of pupil behaviour and as important, better learning."(Teacher) [Tucker 2013]*

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5 Integration and discussion of the evidence

5.1 Mixed methods integration

The JBI methodology for mixed methods systematic reviews was used to guide the convergent segregated approach to integrating the quantitative and qualitative reviews. The following questions were used to inform this integration:

5.1.1 Are the results/findings from individual syntheses supportive or contradictory?

The quantitative data was broadly mixed across all outcomes for both primary and secondary education. Effectiveness of interventions showed significant differences and non-significant differences for multiple outcomes.

Qualitative data included themes around scepticism of intervention effectiveness and long-term impact, which is consistent with the lack of quantitative data supporting the use of targeted social and emotional interventions.

5.1.2 Does the qualitative evidence explain why the intervention is/is not effective?

Qualitative data from one study (McGeechan 2019) highlighted that mindfulness interventions helped with pupil's concentration in class, which meant that were less likely to receive sanctions for their behaviour. This may explain the significant reduction in behaviour problems favouring the mindfulness intervention reported in the quantitative data (Franco 2016). More broadly, quantitative data for all outcomes was generally mixed with some interventions showing significant differences and others not. There was also no obvious impact on the method of delivery (group / individual) or provider (school personnel or specialist) on the effectiveness of interventions. Qualitative data highlighted a need for effectiveness evidence and teacher scepticism around long-term impact of interventions. The barriers and facilitators findings may in part explain why some interventions were not successful, but although the data were of moderate confidence, it wasn't clear to what extent they could explain the mixed findings. It was also not possible to ascertain from the quantitative data whether the successful interventions had made specific efforts to target the barriers to implementation.

5.1.3 Does the qualitative evidence explain differences in the direction and size of effect across the included quantitative studies?

Collectively the qualitative data did not provide clear explanations for the variations in quantitative data. However, it did highlight areas that could contribute to making targeted social and emotional interventions unsuccessful, such as inappropriate reasons for targeting pupils for interventions and logistical difficulties with delivering interventions in groups. The acceptability review highlighted the need for interventions to engage young people and to provide them with appropriate content that was tailored to their needs rather than out of the box. Some of the interventions in the quantitative review may have done this, however there is insufficient detail to tell whether this is the case.

5.1.4 Which aspects of the quantitative evidence were/were not explored in the qualitative studies and which aspects of the qualitative evidence were/were not tested in the quantitative studies?

The overlap between the quantitative and qualitative findings for this review does not make any meaningful integration possible. This is predominantly because the qualitative evidence is very much focussed on process related understanding. The themes are very useful in understanding why the targeted social and emotional interventions worked (or did not work), but other than at a very superficial level they were unable (without substantial speculation) to explain the pupil level outcomes.

5.2 The committee's discussion of the evidence

5.2.1. The outcomes that matter most

The committee categorised outcomes of interest as social and emotional wellbeing (SEW) and academic outcomes and agreed that more weight should be given to the social and emotional outcomes. This is because, in theory, improvement in social and emotional wellbeing may lead to improvements in academic progression and attainment. The committee also agreed that social and emotional wellbeing could be sub-categorised into social and emotional skills, behavioural outcomes and emotional distress. Within the category of social and emotional outcomes, the committee agreed that all outcomes were of equal importance. A reduction in behavioural and/or emotional problems may lead to fewer experiences of mental health difficulties and can potentially help the child or young person concentrate in class and achieve their academic goals for the year. A reduction in disruptive behaviour should also have a positive effect on other children in the class as there will be fewer distractions in the classroom.

However, the committee acknowledged that it is often behavioural problems that are recognised because they are more noticeable. The committee emphasised that emotional problems should not be overlooked just because behavioural problems are easier to spot. Children with emotional problems may not be immediately obvious and so are at risk of additional harm caused by not being identified for additional support. If identification opportunities are missed, then the problem may worsen and lead to mental health difficulties.

Also, of importance are social and emotional skills as improvement in this outcome could delay or stop progression of poor social, emotional or mental wellbeing.

5.2.2 The quality of the evidence

Quantitative evidence

Primary education

The evidence came from 2 RCTs, 1 cRCT and 6 non-randomised studies. The committee acknowledged that the evidence base showed some short-term benefit in reducing behavioural difficulties and improving prosocial behaviour and social and emotional skills but were concerned that the average follow-up time of 3 months was relatively short-term and studies with longer follow-up would be more useful in their decision making. However, the committee thought short-term improvement can be a benefit considering the developmental stage the students are at. Also, the committee agreed that school leaders would be interested in short-term findings as they are

inclined to offer support interventions that will facilitate and support students to learn and progress throughout the school year.

Of the nine studies evaluated, four were carried out in the UK, two in the United States, two in Australia and one in The Netherlands. The committee acknowledged that because education environments vary in structure and delivery of interventions across different countries, this may factor into the generalisability of the evidence from outside of the UK. Social and mental health constructs also vary across countries due to cultural differences and how education systems approach them. However, the use of standardised tools to measure social and emotional wellbeing across the studies may help to mediate this. The majority of studies used waiting-list control as the comparator, and some did not explain in detail what this meant in terms of what the students actually received. The committee would have liked this to have been described further to enable a better interpretation of the evidence and how it would apply to, or differ, from the UK setting. The interventions evaluated in the studies were generally delivered over a 7- to 16-week timeframe. More UK schools are starting to move towards a 6-term academic year with targeted support interventions generally lasting for 6-weeks. The committee acknowledged that the 7- to 16-week timeframe for interventions in the evidence might not be a good fit with this system.

The interventions evaluated aimed to improve various aspects of social and emotional skills such as emotional literacy, behavioural skills, problem-solving skills and self-regulation. These interventions were delivered by specialist providers such as external counsellors, specialist trainers or school-based staff including teachers, teaching assistants and learning mentors. The committee considered that the use of external specialists may reduce the generalisability of the evidence as not all schools would use external specialists in this way and may rely solely on school-based staff to deliver additional social and emotional support. The committee accepted that using a different provider to that intended by the intervention may also affect the effectiveness of the intervention. However, the committee are aware of the forthcoming changes proposed in Transforming children and young people's mental health provision: a green paper where all schools will have a designated mental health school lead and Mental Health Support Teams (MHST) will be rolled out across 25% of schools, which may help when deciding who is best to provide these interventions.

The committee identified some methodological limitations as regards study design. The majority of the studies identified were non-randomised controlled trials which carry an increased risk of bias. However, the committee noted that the findings were similar across study designs, so this is less of concern. Most of the studies allocated individual children to the interventions or control within schools. This can increase the risk of contamination between groups through discussion in other lessons or outside of school for example and may introduce bias in the results. The committee also identified limitations in study conduct. In some studies, participants were likely to know which intervention they were allocated to. This may introduce bias in outcome reporting especially where the outcomes are self-reported. All of the outcomes reported in this review were self-reported. The committee also noted that data collection in the studies may not have been carried out by researchers independent of intervention allocation and implementation. This could have introduced bias at outcome assessment. There was also a concern about potential bias at selection, specifically where children were selected for the interventions by their teachers based on classroom behaviour and in one study, children were selected by their peers for bullying behaviour.

None of the studies reported on other outcomes that the committee were interested in such as emotional distress, quality of life, academic progress and attainment, school attendance or exclusions. Also, none of the included studies reported on adverse effects or unintended consequences.

The confidence in all of the outcomes for primary schools was low or very low so the committee extrapolated from the evidence for both primary and secondary schools, and their own experience and expertise to be able to make recommendations.

Secondary education

The evidence base consisted of 6 RCTs and 1 cRCT, two of which were based in the UK. The committee acknowledged that the evidence base showed some short-term benefit in reducing externalizing behaviours, impulsivity, aggression and emotional distress. Additionally, the evidence base showed short term improvements in social and emotional skills and academic outcomes. However, the committee were concerned that the follow up time of the studies was limited to between 1-week and 6-months. The committee thought that this was too short r to have much confidence in the outcomes of the studies considering the complex nature of issues. However, the committee considered that short-term improvement may be a benefit given the developmental stage the students are at. Also, the committee agreed that school leaders would be interested in short-term findings as they are inclined to give support to interventions that will facilitate and support students to learn and progress throughout the school year.

The studies used a waiting-list control or usual support as the comparator. The interventions evaluated included CBT, mindfulness, brief instrumental mentoring, Reasoning and Rehabilitation V2, school-based humanistic counselling, and Repetitive Negative Thinking-focused Acceptance and Commitment Therapy. These interventions were delivered by school-based specialists over periods ranging from 3-weeks to 6-months. One study reported data on school exclusions and unintended consequences but did not indicate the significance between the intervention and control arm.

The committee identified some methodological limitations as regards study design. All studies allocated children to the interventions or control groups within schools. This can increase the risk of contamination between groups through discussion in other lessons or outside of school for example and may introduce bias in the results. The committee also identified limitations in study conduct. In some studies, participants were likely to know which intervention they were allocated to. This may introduce bias in outcome reporting especially where the outcomes are self-reported. All of the outcomes reported in this review were self-reported.

There was also a concern about potential bias at selection where children were selected for the interventions by their teachers based on classroom behaviour. There were no studies identified that reported on quality of life or school attendance.

The confidence in all of the outcomes for secondary schools was moderate to very low with most outcomes being rated as low confidence so the committee extrapolated from the evidence for both primary and secondary schools, and their own experience and expertise to be able to make recommendations.

Qualitative evidence

Primary education

One study from the UK in primary education contributed to the qualitative findings. This study included the views of parents whose children were receiving additional support for emotional literacy and contributed to the themes on acceptability of intervention provider, effectiveness of the intervention, communication with parents and unintended consequences. Overall, the committee agreed that the confidence in the evidence for themes reported was moderate to high.

There was no evidence of views and experiences from children, school staff, or on barriers and facilitators to targeted SEW support in primary education.

Secondary education

Three studies from the UK in secondary education contributed to the qualitative findings. These studies included the views of school staff and the children and young people receiving additional social and emotional support. The review themes these studies contributed to included introducing the intervention to young people, acceptability of the intervention content, acceptability of the intervention delivery, effectiveness of the intervention, communication with parents and unintended consequences.

The same 3 studies also provided evidence on barriers and facilitators to implementing targeted support interventions. Overall, the committee agreed with the GRADE CERQual assessment that the confidence in evidence for themes reported was moderate to high.

There was no evidence of views and experiences from parents of children and young people receiving additional support in secondary education.

Whilst the committee generally found that the qualitative evidence supported their experiences, they also felt that practice has moved on since the publication of the evidence and that experiences of targeted social and emotional support are starting to improve. This is likely due to progress in the implementation of a whole-school approach.

5.2.3 Benefits and harms

The committee agreed that the evidence for targeted interventions only made sense in the context of previous evidence that they had considered for section 1.3 of the guideline about identifying children and young people who needed additional support. They agreed, based on that evidence and their expertise that there needed to be clear guidance about who should receive targeted support and that this could be based on their individual needs, or the needs of a group of children and young people. The committee made a recommendation to this effect. They also noted that some aspects of best practice were not reflected in the quantitative or qualitative evidence but were fundamental to the success of targeted support. They agreed that involving children and young people in deciding what support was best for them (as well as their parents) was key. Part of this decision was also about deciding whether group or individual support would best suit the person and their support needs. The committee reflected these considerations in its' recommendations . They noted that putting children into groups risks adverse consequences, for example if they are a friendship group they could reinforce each other's behaviours, or the group might not function well if the children and young people did not have a shared level of maturity, cultural background or chronological age. They also noted however, that being singled out for individual support could be stigmatising for the child or young person, and they may be at risk of bullying because of it.

Quantitative evidence

Primary education

Evidence of benefit was shown only in one NRCT for improving prosocial behaviours and reducing behavioural difficulties in group interventions delivered by school staff. The remaining studies showed no difference between group interventions delivered by school staff and control in reducing behavioural difficulties or mental health difficulties, improving prosocial behaviour or social and emotional skills. Two comparative observational studies provided data on group interventions provided by external specialists. The evidence showed benefit from the intervention compared to control in improving social and emotional skills and reducing behavioural difficulties but was no better than control in improving prosocial behaviour.

Two studies (1 RCT and 1 NRCT) provided data on individual interventions provided by school staff. The RCT evidence showed benefit from the intervention compared to control in improving social skills and reducing problem behaviours. The evidence from the NRCT showed that the intervention was no better than control at reducing behavioural difficulties and improving prosocial behaviour. There was one cRCT that provided data on an individual intervention delivered by external specialists. It showed that these interventions improved self-perception and reduced reactive aggression but was no better than control in reducing proactive aggression.

Secondary education

One study provided data for group interventions delivered by school specialists. It showed that the intervention reduced externalising behaviour and two studies provided data for group interventions delivered by external specialists. These showed improvements in social and emotional skills and reductions in emotional distress.

One study provided data for individual interventions though it is unclear who provided the intervention. It showed that the intervention reduced aggression and impulsivity. An additional study provided data for individual interventions delivered by external specialists which showed that the intervention improved academic outcomes but had no significant effect on behavioural outcomes. Whereas one study provided data for individual interventions delivered by school specialists. It showed that the intervention did not have a significant effect on behavioural outcomes or emotional distress. The same study provided data on school exclusions and unintended consequences, but significance between the trial arms was not reported.

The committee also agreed that the findings for both primary and secondary education showed an improvement or no difference in outcomes and no study showed a worsening of the outcomes. The committee concluded that this was an important consideration because it meant that there were no harms associated with either group or individual interventions.

The committee agreed that the evidence did not clearly favour either individual or group interventions, and in their experience this was because there was not a one-size-fits-all approach to targeted interventions. They agreed that a range of both individual and group support were useful for different children and young people in different contexts. They considered evidence from focus groups with children and young people who expressed that peer- to- peer approaches were well regarded by children and young people and therefore the committee agreed that these approaches should be part of the toolbox of approaches and this is reflected in the committee's recommendations. In the committees experience, the success of these

programmes was more about the skill and experience of the practitioner than about the format and this was corroborated by the quantitative evidence.

Qualitative evidence

The qualitative evidence suggested that additional support interventions successfully teach children and young people new skills that are transferrable to the home setting. It is important for any additional support to be relevant, current and age appropriate for the those receiving it. It was acceptable for the interventions to be delivered in small groups as this is a practical preference for school staff as well as a valuable experience for some young people. However, the evidence also suggests that this might not be the right approach for all children and young people and could lead to potential harm. For example, grouping children and young people together because they have demonstrated the same problem behaviour can inadvertently reinforce these behaviours.

The aim of additional support is to provide positive experiences for children and young people. However, the evidence identified a barrier to this in that there are often inappropriate referrals that aim to eliminate problem behaviours. This can lead to more negative experiences by increasing the likelihood of stigma and other unintended consequences.

The evidence also identified barriers to implementing the interventions. For example, although delivering additional support to a group was more practical, teachers found it logistically difficult to take groups of children out of class regularly. Another barrier to using groups is the presence of existing friendships within those groups which increases the likelihood of problem behaviour reinforcement. In contrast, by focusing referrals on individual needs of children and young people it is more likely that groups will be composed of individuals who were not in existing friendships. This decreased the levels of reinforced bad behaviours and generally created a more positive experience.

School staff reported that the cost of an intervention is often a barrier to their implementation. Schools will often look for cheaper alternatives or request from the staff more evidence that an intervention will provide a long-term benefit to a significant number of pupils. This was further supported by committee experience which confirmed that cost and time resources are often priorities for those who commission these interventions.

Primary school parents also felt that there needs to be good school-parent communication to help them understand the overall aim of the intervention as well as a way to be kept informed of their child's progress. This may in turn help to reduce unintended consequences of continuity issues once the provision of support for that child comes to an end. This supported the committee's view that engaging with parents/carers is important as they have a big influence on their child's health behaviour. The committee agreed that this was important and extrapolated the evidence to cover secondary schools as well. They agreed that the evidence supported their consensus that it was important to keep parents involved with any support that was being offered to their child and this is reflected in the committee's recommendations.

5.2.4 Cost effectiveness and resource use

The committee noted that no published cost effectiveness evidence had been identified on targeted interventions for social and emotional support. In the absence of published evidence the committee agreed it would be informative to develop a

bespoke economic model to support decision makers understanding of the potential economic and wellbeing implications of introducing a new intervention.

The model adopted cost consequences analysis as well as cost benefit analysis out of concern that the QALY is limited with regard to capturing the wide variety of outcomes relevant to childhood current and future wellbeing. Expert views were taken into account in the model. The committee noted that data paucity considerably limited the assessment of impact and cost effectiveness.

The committee considered the findings of the model which showed the interventions could be cost effective and what the key drivers of cost effectiveness were. However, they were mindful that the outcomes used in the model are associated with great uncertainty. They observed that children and young people's outcomes could be positive or negative or a combination of the two. and that there was no evidence available to know the combined effect of an intervention across different outcomes. For positive outcomes they considered the model may over-estimate the overall benefit whereas for negative outcomes it may underestimate the total benefit. The committee believed it crucially important schools and other education settings take account of any potential adverse consequences in deciding whether to fund an intervention.

The committee were particularly concerned by the lack of studies on the long-term impact of intervening. They agreed that improvement in social and emotional wellbeing could lead to improvements in quality of life as well as improvements in academic progression and attainment. They also agreed there were likely to be benefits to the wider system including helping young people to become happy and successful adults, prepared for the opportunities, responsibilities and experiences of adult life. That the model was unable to capture these potential benefits due to an absence of data was considered a major limitation. From this view, the model could underestimate the benefit of all interventions. Other limitations noted include an oversimplification of the effect of an intervention by dichotomising continuous variables above and below a determined threshold and the lack of evidence on utility values. This could result in either underestimates or overestimates of the cost effectiveness outcomes.

They were also aware that the lack of data meant it had not been possible to adopt a holistic approach which captures the importance of a supportive and secure environment (e.g. supportive peers, role models, personal feelings of safety - to feel safe from being bullied, safe to report things without fear of stigma) and an ethos that avoids stigma and discrimination in relation to mental health and social and emotional difficulties.

The committee agreed that the potential cost effectiveness of an intervention is impacted by a myriad of factors including those relating to the intervention such as the local cost of delivery and who delivers the intervention as well as external factors such as family and peer relationships. It was also acknowledged by some that this is a relatively new field of science by which very minor changes in context or circumstance can dramatically impact the findings. Taken together with the substantial variability in the interventions available, the heterogeneity across schools and the limitations of the evidence the committee considered it unwise to draw broad conclusions from the model. Rather the committee agreed decision makers should make use of the economic model to understand the potential economic and wellbeing implications when considering the introduction of a new intervention in school and help identify any gaps in current research. The committee believe this could also help guide future research with the aim of improving the mental health and wellbeing of children and young people.

The committee highlighted that schools and higher educational settings have a statutory duty to address mental health issues – by teaching about and promoting mental well-being and ways to prevent negative impacts on mental well-being.

Finally, whilst the committee considered that implementing interventions might incur additional costs where these are not already in place they believe that an integrated approach, using universal, whole school, targeted and transition interventions could prevent outcomes which can lead to costly consequences for the wider system including the NHS, social services and the criminal justice system.

5.3 Recommendations supported by this evidence review

This evidence review supports recommendations 1.4.1 to 1.4.7. Other evidence supporting these recommendations can be found in evidence review H.

5.4 References – included studies

Bernal-Manrique, Koryn N; Garcia-Martin, Maria B; Ruiz, Francisco J (2020) Effect of acceptance and commitment therapy in improving interpersonal skills in adolescents: A randomized waitlist control trial. Journal of Contextual Behavioral Science 17: 86-94

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1 Appendices

2 Appendix A: Review protocols

Field	Content
PROSPERO registration number	N/A
Review title (50 Words)	Targeted social or emotional support in primary, secondary and further education.
Review question (250 words)	Quantitative (effectiveness) 4.1a What is the effectiveness and cost-effectiveness of targeted interventions that aim to promote social and emotional support in children in primary education? 4.1 b What is the effectiveness and cost-effectiveness of targeted interventions that aim to promote social and emotional support in children and young people in secondary and further education? Qualitative (views and experiences) 4.2 Are targeted approaches to promote social, emotional and mental wellbeing acceptable to: Children and young people receiving them Teachers/practitioners delivering the interventions Parents/Carers of children and young people receiving the interventions Qualitative and Quantitative (Survey data and views and experiences) 4.3 What are the barriers and facilitators to using targeted approaches to promote social, emotional and mental wellbeing in children and young people?
Objective	Quantitative (effectiveness) 4.1aTo identify which targeted interventions that aim to promote social and emotional support are effective and cost-effective for children in primary education (UK key stages 1 and 2 or equivalent). 4.1b To identify which targeted interventions that aim to promote social and emotional support are effective and cost-effective for children and young people in secondary education and further education (UK key stages 3 and 4 and post-16 education or equivalent). Qualitative (views and experiences) 4.2 To understand the acceptability of targeted interventions that aim to promote social and emotional support in UK key stages 1 to 4 and post-16 education or equivalent in UK through views and experiences of: Children and young people Teachers/practitioners delivering the interventions

Field	Content
	Parents/Carers of children and young people receiving the interventions Quantitative and Qualitative (Survey data and views and experiences) 4.3 To identify the barriers and facilitators of targeted social and emotional support interventions for children and young people in UK key stages 1 to 4 and post-16 education or equivalent. The purpose of this review is to identify which interventions work rather than which interventions work best. The implication of this is that any effective intervention arising from this evidence review and associated reviews (cost-effectiveness, acceptability and barriers/facilitators) will be recommended in a list of options for schools to use.
Searches (300 words)	The following databases will be searched: Medline and Medline in Process (OVID) Embase (OVID) CENTRAL (Wiley)) Cochrane Database of Systematic Reviews (Wiley) PsycINFO (Ovid) Social Policy and Practice (OVID) ERIC (Proquest) Web of Science Database functionality will be used, where available, to exclude: non-English language papers animal studies editorials, letters and commentaries conference abstracts and posters registry entries for ongoing or unpublished clinical trials dissertations duplicates Searches will be restricted by: January 2007 to date Study design – No filter needed Secondary Databases A simple keyword-based search approach will be taken in the following databases: DARE (legacy database - records up to March 2014 only) (CRD) National Guidelines Clearinghouse (US Dept. of Health and Human Services) Bibliomap (eppicentre)

Field	Content
	Dopher (eppicentre) Trophi (epicentre) Citation searching Depending on initial database results, forward citation searching on key papers may be conducted, if judged necessary, using Web of Science (WOS). Only those references which NICE can access through its WOS subscription would be added to the search results. Duplicates would be removed in WOS before downloading. The reference list of current systematic reviews (< 2 years old) will be checked for relevant studies Websites Web searches will also be conducted. Google and Google Scholar will be searched for some key terms and the first 50 results examined to identify any UK reports or publications relevant to the review that have not been identified from another source. Searches will also be conducted on key websites for relevant UK reports or publications: Websites PSHE association Public Health England Department of Health Department for Education Public Health Institute Mentor-Adepis OFSTED National Foundation for Educational Research Research in Practice Education Endowment Foundation Office for Children's Commissioner Council for disabled children Results will be saved to EPPI Reviewer. A record will be kept of number of records found from each database and of the strategy used in each database. A record will be kept of total number of duplicates found and of total results provided to the Public Health team. The searches will be re-run 6 weeks before final submission of the review and further studies retrieved for inclusion. The full search strategies for MEDLINE database will be published in the final review.
Condition or domain being studied (200 words)	Social, emotional and mental wellbeing

Field	Content
Population (200 words)	Quantitative and Qualitative Population Children (including those with SEND) in UK key stages 1 and 2 or equivalent in primary education Children and young people (including those with SEND) in UK key stages 3 to 4 or equivalent in secondary education Young people in post-16 education (further education) up to the age of 18 or 19 for young people without SEND up to the age of 25 for young with SEND who have been identified as needing support in developing social and emotional competencies / skills / wellbeing. Qualitative (views and experiences) and quantitative (survey data) only Other populations: Teachers/practitioners delivering the interventions Parents/Carers of children and young people receiving the interventions Setting: The following settings will be included: Schools providing primary education including maintained schools, academies, free schools, independent schools, non-maintained schools, and alternative provision including pupil referral units (see Department for Education's Types of school). Special schools. Secure children's homes. Exclusion: Population: Children in early years foundation stage (EYFS) (Where the studies define the population by age/UK key stage, we will only exclude if more than 50% of the population is in EYFS.) Setting: Private homes
Intervention (200 words)	Usual practice plus individual or small group interventions targeted at improving one or more social and emotional competencies / skills / wellbeing
Comparator (200 words)	Quantitative (effectiveness) Usual practice (can include waiting list or no intervention) Quantitative (survey)

Field	Content
	Not applicable Qualitative (views and experiences) Not applicable
Types of study to be included (150 words)	Quantitative (Effectiveness) Randomised controlled trials non-randomised comparative studies Quantitative (Survey) Mixed-method studies with a quantitative component Survey or other cross-sectional studies that report on barriers and facilitators to these interventions. Qualitative (Views and experiences) Qualitative studies of interventions for example focus groups and interview-based studies or mixed-methods studies with a qualitative component
Other exclusion criteria (no separate section for this to be entered on PROSPERO – it gets included in the section above so within that word count)	Quantitative (effectiveness) Papers published in languages other than English will be excluded. Studies from countries outside of OECD list (n=36) will be excluded. Studies published before the year 2007 will be excluded. Studies not published in full text (e.g. protocols or summaries) will be excluded. Studies that do not have a control group. Quantitative (survey) Studies from outside the UK will be excluded. Papers published in languages other than English will be excluded. Studies not published in full text (e.g. protocols or summaries) will be excluded. Studies published before the year 2007 will be excluded Qualitative (views and experiences) Studies from outside the UK will be excluded. Papers published in languages other than English will be excluded. Studies not published in full text (e.g. protocols or summaries) will be excluded. Studies published before the year 2007 will be excluded

Field	Content
Context (250 words)	Population and setting: Selected population of children in primary school education (UK key stages 1 and 2 or equivalent) and children and young people in secondary and further education (UK key stages 3, 4 and post-16 education)Within this, there may be differences in context depending on type of school, geographical location or socioeconomic status as well as subgroups of children such as those with special educational needs and disabilities. Intervention: Targeted approaches delivered in school and ideally during usual school hours. Social and emotional skills are key during children and young people's development that may help to achieve positive outcomes in health, mental wellbeing and future success. These skills encompass five core competencies, self-awareness, self-regulation, social awareness, responsible decision-making and relationship skills. These skills can be taught during primary school in a cumulative approach whereby the skills acquired increase in complexity as appropriate to age and act as a foundation for further development in secondary school. Some children may be 'struggling' to develop these skills and may be at risk of poor social, emotional and mental wellbeing outcomes. Targeted approaches aim to provide extra support for these children and give them the skills to prevent poor mental health...
Primary outcomes (critical outcomes) (200 words) A separate mandatory box for Timing and Measures of these outcomes needs to be completed within PROSPERO. Please list these under timing and measures heading (200 words)	Quantitative (effectiveness) Social and emotional wellbeing outcomes Any validated measure of mental, social, emotional or psychological wellbeing categorised as: Social and emotional skills and attitudes (such as knowledge) Emotional distress (such as depression, anxiety and stress) Behavioural outcomes that are observed (such as positive social behaviour; conduct problems) Academic outcomes Academic progress and attainment Quantitative (survey) Proportional data e.g. number of schools reporting a particular barrier

Field	Content
	Qualitative (views and experiences) Views and experiences in terms of acceptability and barriers and facilitators of: teachers and practitioners delivering interventions children and young people receiving interventions. parents/carers of children and young people receiving the interventions
Timings and measures	Quantitative (effectiveness) At least 3 months Studies that report outcomes at less than 3 months will be downgraded for indirectness. Quantitative (survey) Not applicable Qualitative (views and experiences) Not applicable
Secondary outcomes (important outcomes) (200 words) As above a separate entry for the timing and measures of these additional outcomes (200 words)	Quantitative (effectiveness) School attendance School exclusions Unintended consequences (e.g. stigma, reinforcement of negative behaviours) Quality of life
Data extraction (selection and coding) (300 words)	All references identified by the searches and from other sources will be uploaded into EPPI-R5 and de-duplicated. This review will use the EPPI-R5 priority screening functionality. At least 50% of the identified abstracts (or 1,000 records, if that is a greater number) will be screened. After this point, screening will only be terminated if a pre-specified threshold is met for a number of abstracts being screened without a single new include being identified. This threshold is set according to the expected proportion of includes in the review (with reviews with a lower proportion of includes needing a higher number of papers without an identified study to justify termination) and is always a minimum of 500. A random 10% sample of the studies remaining in the database when the threshold is met will be additionally screened, to check if a substantial number of relevant studies are not being correctly classified by the algorithm, with the full database being screened if concerns are identified.

Field	Content
	The full text of potentially eligible studies will be retrieved and will be assessed in line with the eligibility criteria outlined above (see sections 6-10). A standardised EPPI-R5 template will be used when extracting data from studies (this is consistent with the Developing NICE guidelines: the manual section 6.4). Details of the intervention will be extracted using the TIDieR checklist in EPPI-R5. Outcome data will be extracted into EPPI-R5 as reported in the full text. Study investigators may be contacted for missing data where time and resources allow.
Risk of bias (quality) assessment (200 words)	Quantitative (effectiveness) Risk of bias will be assessed on an outcome basis using the following NICE preferred study design appropriate checklists for intervention studies as described in Developing NICE guidelines: the manual (Appendix H) Individual RCTs: Cochrane risk of bias tool 2.0 Cluster RCTs: Cochrane risk of bias tool 2.0 NRCTs: Cochrane ROBINS-I Quantitative (Survey) Risk of bias will be assessed on an outcome basis using the following NICE preferred study design appropriate checklist for surveys as described in Developing NICE guidelines: the manual (Appendix H) CEBM checklist Qualitative (views and experiences) Risk of bias will be assessed on an outcome basis using the NICE preferred study design appropriate checklists for qualitative studies as described in Developing NICE guidelines: the manual (Appendix H) CASP qualitative checklist Mixed methods studies Risk of bias will be assessed using the MMAT (mixed methods appraisal tool).
Strategy for data synthesis (300 words)	Quantitative (effectiveness) The outcomes will be categorised at data extraction into four categories: social and emotional skills emotional distress behavioural outcomes and

Field	Content
	academic outcomes. Where meta-analysis is appropriate, the data will be pooled within the categories above using a random effects model to allow for the anticipated heterogeneity. Dichotomous data will be pooled where appropriate and the effect size will be reported using risk ratios in a standard pair-wise meta-analysis. Continuous outcomes reported on the same scale will be pooled in a standard pair-wise meta-analysis using mean difference where possible. Continuous outcomes not reported on the same scale will be pooled using a standardised mean difference in a standard pair-wise meta-analysis. Methods for pooling cluster randomised controlled trials will be considered where appropriate. Unit of analysis issues will be dealt with according to the methods outlined in the Cochrane Handbook. Methods for pooling cluster randomised controlled trials will be considered where appropriate. Unit of analysis issues will be dealt with according to the methods outlined in the Cochrane Handbook. Unexplained heterogeneity will be examined where appropriate with a sensitivity analysis. Where appropriate, the quality or certainty across all available evidence will be evaluated for each outcome using an the 'Grading of Recommendations Assessment, Development and Evaluation (GRADE) toolbox' developed by the international GRADE working group http://www.gradeworkinggroup.org/ If the studies are found to be too heterogeneous to be pooled statistically, a narrative approach will be conducted. A meta-regression looking components of interventions will be undertaken if there are a sufficient number of studies identified for each variable (at least n=10), Quantitative (survey) Where appropriate, the quality or certainty across all available evidence will be evaluated for each outcome using the GRADE approach. Qualitative (views and experiences) The key themes and supporting statements from the studies will be categorised into themes relevant to the review across all studies using a thematic analysis.

Field	Content
	Where appropriate, the quality or certainty across all available evidence will be evaluated for each outcome using the GRADE CERQual approach. Integration of data As we have included different types of data from different sources as follows: Quantitative effectiveness data from intervention studies (RQ 4.1a and 4.1b) cross-sectional data from surveys on barriers and facilitators (RQ 4.3) Qualitative acceptability data related to interventions (RQ 4.2) barriers and facilitators (RQ 4.3) An inductive convergent segregated approach will be undertaken to combine findings from each review. Where possible qualitative and quantitative data will be integrated using tables. Where quantitative and qualitative data comes from the same study, the technical team will present the qualitative analytical themes next to quantitative effectiveness data for the committee to discuss. different studies, the committee will be asked to interpret both sets of finding using a matrix approach for the committee discussion section.
Analysis of sub-groups (250 words)	Quantitative (effectiveness) Reason for selection UK key stage socioeconomic status ethnicity geographical area children and young people with special educational needs and disabilities (SEND) other groups for consideration listed in EIA type of school setting e.g. mainstream, alternative provision, secure settings Quantitative (survey) Not applicable Qualitative (views and experiences) Not applicable
Type of method of review	Intervention
Language	English
Country	England

Field	Content
Named contact	5a. Named contact I Guideline Development Team 5b Named contact e-mail PHAC@nice.org.uk 5c Named contact address National Institute for Health and Care Excellence Level 1A City Tower Piccadilly Plaza Manchester M1 4BD 5d Named contact phone number +44 (0)300 323 0148 5e Organisational affiliation of the review National Institute for Health and Care Excellence (NICE) and NICE Public Health Guideline Development Team.
Review team members	[From the Centre for Guidelines: From the Centre for Guidelines: Hugh McGuire, Technical Adviser Sarah Boyce, Technical Analyst Lesley Owen, Health economist Rachel Adams, Information Specialist Chris Carmona, Technical Adviser Giacomo De Guisa, Technical Analyst Adam O'Keefe, Project Manager
Funding sources/sponsor	This systematic review is being completed by the Centre for Guidelines which receives funding from NICE.
Conflicts of interest	All guideline committee members and anyone who has direct input into NICE guidelines (including the evidence review team and expert witnesses) must declare any potential conflicts of interest in line with NICE's code of practice for declaring and dealing with conflicts of interest. Any relevant interests, or changes to interests, will also be declared publicly at the start of each guideline committee meeting. Before each meeting, any potential conflicts of interest will be considered by the guideline committee Chair and a senior member of the development team. Any decisions to exclude a person from all or part of a meeting will be documented. Any changes to a member's declaration of interests will be recorded in the minutes of the meeting. Declarations of interests will be published with the final guideline.
Collaborators NB: This section within PROSPERO does not have	Development of this systematic review will be overseen by an advisory committee who will use the review to inform the development of evidence-based

Field	Content	
free text option. Names of committee members to be inserted individually by the project manager and any additional collaborators	recommendations in line with section 3 of Developing NICE guidelines: the manual. Members of the guideline committee are available on the NICE website	
Other registration details (50 words)	None	
Reference/URL for published protocol	None	
Dissemination plans	NICE may use a range of different methods to raise awareness of the guideline. These include standard approaches such as: notifying registered stakeholders of publication publicising the guideline through NICE's newsletter and alerts issuing a press release or briefing as appropriate, posting news articles on the NICE website, using social media channels, and publicising the guideline within NICE.	
Keywords	Social, emotional and mental wellbeing, targeted social and emotional support, children and young people	
Details of existing review of same topic by same authors (50 words)	None	
Current review status	☒	Ongoing
	☐	Completed but not published
	☐	Completed and published
	☐	Completed, published and being updated
	☐	Discontinued
Additional information	None	
Details of final publication	https://www.nice.org.uk/	

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Appendix B: Literature search strategies

Please see below for Medline strategy. For full search strategies refer to the searches document on the guideline webpage.

Database name: Medline

Database: Ovid MEDLINE(R) <1946 to September 22, 2019>

Search Strategy:

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1 ((Social or emotional or social-emotional or socio or socio-emotional or pro-social or prosocial) and (wellbeing or well-being or wellness or learn* or competenc* or skills)).ti,ab. (70714)

2 ((SEL or SEAL or SEBS or EWB or EMHWB) and (school* or class* or curricul* or intervention* or program*)).ti,ab. (1517)

3 ("social learner*" or "social learning").ti,ab. (2298)

4 (resilien* or coping).ti,ab. (62350)

5 Adaptation, Psychological/ or Resilience, Psychological/ (94777)

6 (self-control or "emotional regulation" or self-aware* or self-efficacy or self-regulat* or self-confiden* or self-management or self-esteem or self-concept or "emotional intelligence" or mindful*).ti,ab. (76417)

7 Emotional Intelligence/ (1909)

8 exp Self Concept/ (105384)

9 Emotional Adjustment/ or Social Adjustment/ (23549)

10 ((social or interpersonal or communication or relationship*) adj2 (skill* or competence* or attribute*)).ti,ab. (18474)

11 (friendship* or friends).ti,ab. (24474)

12 ((social or peer or peers) adj2 (group* or network*)).ti,ab. (23799)

13 empathy.ti,ab. (8945)

14 ("social awareness" or socialisation or socialization or "social interaction*" or "social inclusion").ti,ab. (21692)

15 Social Skills/ or Social Behavior/ or Social Values/ (70243)

16 ("personal development" or "youth development").ti,ab. (2043)

17 ("decision making" or "problem solv*" or problem-solv*).ti,ab. (112957)

18 Decision Making/ (90526)

19 Problem Solving/ (24255)

20 (bully* or bullies or anti-bully* or "anti bully*" or antibully* or cyber-bully* or "cyber bully*" or cyberbully* or victimis* or victimiz* or stigma or anti-stigma or "anti stigma" or antistigma or prejudice*).ti,ab. (30754)

21 (delinquen* or anti-social or "anti social" or antisocial or "conduct disorder*" or "risky behavio*" or "problem behavio*" or (behavio* adj problem*)).ti,ab. (34445)

22 (((substance or drug* or alcohol) adj3 ("use" or abuse or misuse)) and (prevent* or reduc*)).ti,ab. (46764)

23 ((exclu* or expulsion or expel* or absent* or truant* or truancy or conflict or violent or violence or disengage*) and school*).ti,ab. (12142)

24 bullying/ or cyberbullying/ or problem behavior/ (5249)

25 ((school* or academic) adj2 (achieve* or attain* or engage* or progress* or motivat* or connectedness or belonging)).ti,ab. (7370)

26 Mental Health/ (34943)

27 (mental adj2 (health or wellbeing or well-being or "well being" or wellness)).ti,ab. (109607)

28 ((psychological or "psycho social" or psycho-social or psychosocial) adj2 (wellbeing or "well being" or well-being)).ti,ab. (9525)

29 (anxiety or anxious or depression or depressed or depressive or stress).ti,ab. (978914)

30 or/1-29 (1654021)

31 ("Aban Aya" or "Academic and Behavioural Competency Program*" or "Active Citizens in Schools" or ACIS or "Adolescent Decision Making Program*" or "ALERT plus" or "Alcohol Education Package" or "Alcohol Education Program*" or "Alcohol Screening and Brief Intervention" or "All Stars" or "Al's Pals" or "Alternatives to Trouble" or "Amazing Alternatives" or "Anti-bullying Program*" or "Attention Academy" or "Aussie Optimism" or BARR or "BBBS Ireland" or "Be the Best You can Be" or "Beat Bullying" or Beatbullying or "Befriending Intervention" or BeyondBlue or "Big Brothers Big Sisters" or "Bounce Back" or "Boys and Girls Club" or "Breathing Awareness Meditation" or "Building Assets Reducing Risks" or "Building Resiliency and Vocational Excellence" or "Bully Proofing" or Bullyproofing or "Bullying Eliminated from Schools Together").ti,ab. (30633)

32 (CAPSLE or CASEL or "Caring School Community" or CharacterPlus or "Child Development Initiative" or "Circle Time" or "Classroom Centred Intervention" or "Classroom Centred Program*" or "Class-wide Function-based Intervention" or "Climate Schools" or Climb-UP or CMCD or "Coalition for Youth Quality of Life" or "Comer School Development Program*" or "Communities that Care" or "Community of Caring" or "Competence Support Program*" or "Competent Kids Caring Communities" or "Conscious Coping" or "Consistency Management and Cooperative Discipline" or "Coping Koala" or "Coping Power" or "Counsellor Peers" or "Creating a Peaceful School Learning Environment" or Cues-ed or CSRP or "Cultivating Awareness and Resilience in Education").ti,ab. (466)

33 ("Early Risers" or "EiE-L" or "Empathic Discipline" or "Empower Youth" or "Engage in Education" or "Expect Respect" or "Expeditionary Learning" or "Facing History and Ourselves" or "Families and Schools Together" or "Family Check-up" or "Family School Partnership" or "Family SEAL" or "Fast Track" or "FearNot*" or "First Steps to Success" or "Formalised Peer Mentoring" or "Foundations of Learning" or "Fourth R-Skills" or "Fourth

Step" or "Friendly Schools" or "FRIENDS program*" or FSP or "Gang Resistance Education and Training" or Gatehouse or GBG or "Get Wise" or "Girls First" or "Going for Goals" or "Going Places" or "Good Behaviour Game" or "Grades Attendance and Behaviour" or "Guided Self-change" or HASSP or "Head Start" or "healthy active peaceful playgrounds" or "Healthy for Life" or "Healthy Futures" or "Healthy Lifestyles" or "Healthy Minds in Teenagers" or "Healthy Relationships Training Program*" or "Healthy Schools and Drugs" or "Here's Looking at You" or HighScope or "Home and School Support Program*" or "How to Thrive" or "I Can Problem Solve" or ICPS or "ICAN Kids" or "Improving Social Awareness" or "Incredible Years" or "Inner Explorer" or InnerKids or "Inspiring Futures" or "Interpersonal Cognitive Problem Solving Skills" or "In:tuition" or "ISA-SPS" or Jigsaw).ti,ab. (12904)

34 ("Keepin* It REAL" or "Kia Kaha" or KiVa or "klar bleiben" or "Knightly Virtues" or "Know Your Body" or "Learning for Life" or "Learning to BREATHE" or "Lessons for Living" or "Lessons in Character" or "Life Skills Program*" or "Life Skills Training" or Lift or "Linking the Interests of Families and Teachers" or "Lions Quest" or "Living with a Purpose" or "Love in a Big World" or LST or "Master Mind" or "Match Model" or "Michigan Model for Health" or "Middle School Success" or "Midwest* Prevention Project" or "Millennium Volunteers" or "Million Dollar Machine" or "Mind Up" or MindUP or MindfulKids or "Mindfulness in Schools" or MISP or "Mood Gym" or "My Character" or "My Teaching Partner" or "New Beginnings" or Narconon or OBPP or Olweus or "Open Circle" or "Op Volle Kracht" or "Over to You").ti,ab. (10509)

35 (Paths or PATHstoPAX or "Paws B" or "Peace Builders" or "Peace Works" or "Peacemaking Skills for Little Kids" or "Peer Mentoring" or "Peer Acceleration Social Network" or "Penn Resiliency Program*" or "Personality Risk Factors" or PESSOA or Playworks or Ploughshares or "Positive Action" or "Positive Alternative Learning Support" or "Positive Adolescent Life Skills" or "Positive Youth Development Program*" or "Preparation through Responsive Education" or "Primary SEAL" or "Prime for Life" or "Proactive Classroom" or Pro-ACT or "Problem Solving Program*" or Progetto or "Project A.T.T.E.N.D." or "project ALERT" or "project CHARLIE" or "Project Northland" or "Project Pride" or "project SMART" or "Project Based Learning" or "Project STAR" or "Promoting Alternative Thinking Strategies" or "Puppets for Peace" or "Pyramid Project" or "Raising Healthy Children" or RCCP or ReachOut or "Reaching Adolescents for Prevention" or "Reading Apprenticeship" or "Reading, Writing, Repect and Resolution" or "Recognizing, Understanding, Labeling, Expressing and Regulating Emotions" or "Reconnecting Youth" or REDI or "Resilience Program*" or "Resilient Families" or "Resolving Conflict Creatively" or "Respect Program*" or "Responsive Classroom" or "Risk Training Skills" or "Rochester Resilience Program*" or "Resourceful Adolescent Program*" or "Roots of Empathy" or Rtime or Ruler).ti,ab. (18072)

36 ("Safe and Civil Schools" or "Safe Dates" or "SafERteens" or "Say Yes First" or SBIRT or "School-based Resilience Intervention" or "School Health and Alcohol Harm Reduction Project" or "School-wide Positive Behavioural Interventions and Support" or "Second Step" or SS-SSTP or "Secondary SEAL" or "Seattle Social Development Project" or "SEED Scotland" or "Self-determination Program*" or "Self-management and Resistance Training" or "Service Learning" or "SFP10-14" or SHAHRP or "Siblings are Special" or SIBS or "Skills for Adolescence" or "Skills for Change" or "Skills for Success" or SingUp or "Social Competence Training" or "Social Decision Making" or "Social Norms" or "Social Problem Solving Skills" or "Social Skills Group Intervention*" or "Social Skills Training" or "South Carolina Program*" or "Smart Moves" or "S.S.GRIN" or SST or "Steg fur Steg" or STAMPP or "STARS for Families" or "Start Taking Alcohol Risks Seriously" or "Staying Calm" or "Step II" or "Steps towards Alcohol Misuse Prevention" or "Talk about Alcohol" or "Step-by-Step" or "Steps to Respect" or "Stop Breathe Be" or "Strengthening Families Program*" or "Strengths Gym" or "Stress Inoculation Training" or "Stress Management Intervention" or "Student Success Skills" or

"Student Success through Prevention" or "Student Threat Assessment" or "Success for Kids" or SWPBIS or SWPBS or "Teach Team" or "Teen Outreach Program*" or "Teen Talk" or "Theatre in Education" or "The GOOD life" or "The Incredible Years" or "Think Feel Do" or "Think Well, Do Well" or "Too Good for Violence" or "Tools for Getting Along" or "Tools of the Mind" or "Towards no drug abuse" or "Transition Mentoring" or "Tribes Learning Communities" or "UK Resilience Program*" or "Unique Minds" or ViSC or "Wise Mind" or Woodrock or YogaKid* or "Yo Puedo" or "You Can Do It!" or "Youth Development Project" or "Youth Matters" or "Zippy's Friends" or "21st Century Community Learning" or "4Rs").ti,ab. (30473)

37 (PSHE or "personal social health" or PSE or "personal and social education" or SMSC or "spiritual moral social and cultural").ti,ab. (2145)

38 ("positive behavio* intervention*" or "positive behavio* support" or PBIS).ti,ab. (165)

39 ("school-wide positive behavio* support*" or SWPBS).ti,ab. (3)

40 "relationships and sex education".ti,ab. (4)

41 or/31-40 (104761)

42 30 and 41 (13501)

43 (mindful* or meditat* or yoga).ti,ab. (11384)

44 Mindfulness/ or Meditation/ or Yoga/ (6881)

45 "life skills".ti,ab. (849)

46 "motivational interview*".ti,ab. (3043)

47 Motivational Interviewing/ (1591)

48 ((brief or opportunist* or concise or short or direct) adj3 (counsel* or advice* or advise* or advisor* or therap* or support* or guide* or guidance* or intervention*)).ti,ab. (29852)

49 ((behaviour* or behavior* or cognitive) adj3 (technique* or therap* or chang* or modify or modifies or modifying or support* or intervention* or session* or program* or workshop*)).ti,ab. (110815)

50 counseling/ or directive counseling/ or child guidance/ or psychology, adolescent/ (50585)

51 Behavior Therapy/ or Cognitive Behavioral Therapy/ (50088)

52 (skills adj1 (train* or teach* or educat* or develop*)).ti,ab. (8859)

53 ((peer or pastoral or teacher*) adj2 (educat* or support* or group* or led)).ti,ab. (10670)

54 (prevent* and (intervention* or program*)).ti,ab. (194684)

55 "intervention program*".ti,ab. (12935)

56 "social and emotional learning program*".ti,ab. (17)

57 "play therap*".ti,ab. (365)

58 ("mental health" adj3 (intervention* or program*)).ti,ab. (4974)

59 ((Wellbeing or "well being" or well-being) adj3 (intervention* or therap*)).ti,ab. (906)

60 ((HIIT or fitness or "physical activity") adj2 (intervention or program*)).ti,ab. (4337)

61 ((questionnaire* or survey* or self-report* or "self report*" or assessment*) adj3 (school* or class or classroom* or pupil* or student* or teach*)).ti,ab. (23046)

62 or/43-61 (451022)

63 (classroom* or "whole class*" or whole-class*).ti,ab. (13301)

64 ((multi*-component or multicomponent or "multi* component" or universal or brief or "group based" or group-based or groupbased or "group work*" or group-work* or groupwork* or "small group*" or small-group* or targeted) and (intervention* or program* or project* or pilot* or initiative* or approach* or activit* or lesson* or curricul*)).ti,ab. (190743)

65 ("whole school*" or whole-school* or wholeschool* or "school wide" or school-wide or schoolwide or "school based" or school-based or schoolbased).ti,ab. (10802)

66 (school* adj3 (ethos or culture or life or environment or governance or policy or policies or leadership or SLT)).ti,ab. (5547)

67 (school* and (intervention* or program*)).ti,ab. (62493)

68 or/63-67 (264354)

69 62 and 68 (57035)

70 30 and 69 (24013)

71 (school* or pupil* or student* or teach* or curricul* or lesson* or learner* or learning or syllabus).ti,ab. (744877)

72 (((city or technical) and (academy or academies or college*)) or sixth-form* or "sixth form*" or "6th form*" or "lower six*" or "upper six*" or "post 16" or post-16 or "further education").ti,ab. (4591)

73 ("secure children* home*" or "young offender* institution*" or "secure training cent*" or "secure school*").ti,ab. (50)

74 ("year one" or "year 1" or "year two" or "year 2" or "year three" or "year 3" or "year four" or "year 4" or "year five" or "year 5" or "year six" or "year 6" or "year seven" or "year 7" or "year eight" or "year 8" or "year nine" or "year 9" or "year ten" or "year 10" or "year eleven" or "year 11" or "year twelve" or "year 12" or "year thirteen" or "year 13" or "key stage one" or "key stage 1" or "key stage two" or "key stage 2" or "key stage three" or "key stage 3" or "key stage four" or "key stage 4" or "key stage five" or "key stage 5" or KS1 or KS2 or KS3 of KS4 or KS5 or "grade one" or "grade 1" or "grade two" or "grade 2" or "grade three" or "grade 3" or "grade four" or "grade 4" or "grade five" or "grade 5" or "grade six" or "grade 6" or "grade seven" or "grade 7" or "grade eight" or "grade 8" or "grade nine" or "grade 9" or "grade ten" or "grade 10" or "grade eleven" or "grade 11" or "grade twelve" or "grade 12" or "first grade" or "1st grade*" or "second grade*" or "2nd grade*" or "third grade*" or "3rd grade*" or "fourth grade*" or "4th grade*" or "fifth grade*" or "5th grade*" or "sixth grade*" or "6th grade*" or "seventh grade*" or "7th grade*" or "eighth grade*" or "8th grade*" or "ninth grade*" or "9th grade*" or "tenth grade*" or "10th grade*" or "eleventh grade*" or "11th grade*" or "twelfth grade*" or "12th grade*").ti,ab. (98924)

75 curriculum/ or schools/ or teaching/ or school health services/ or school nursing/ or school teachers/ (161359)

76 or/71-75 (874883)

77 (medical or medicine or dental or dentist* or doctor* or physician* or nursing or "teaching hospital*" or undergraduate* or graduate* or postgraduate* or preschool* or pre-school* or nursery or "higher education" or university or universities).ti,ab. (2136781)

78 76 not 77 (561635)

79 exp Child/ or exp Child Behavior/ or Child Health/ or Child Welfare/ or Child Development/ (1866009)

80 Adolescent Behavior/ or Adolescent/ or Adolescent Health/ or Adolescent Development/ (1957161)

81 (child* or adolescen* or kid or kids or youth* or youngster* or minor or minors or underage* or under-age* or "under age*" or "young person*" or "young people" or pre-adolescen* or preadolescen* or pre-teen* or preteen* or teen or teens or teenager* or juvenile* or boy or boys or boyhood or girl or girls or girlhood or schoolchild* or student* or pupil* or "school age*" or school-age* or schoolage*).ti,ab. (1870299)

82 or/79-81 (3597925)

83 78 and 82 (273336)

84 42 or 70 (35928)

85 83 and 84 (11518)

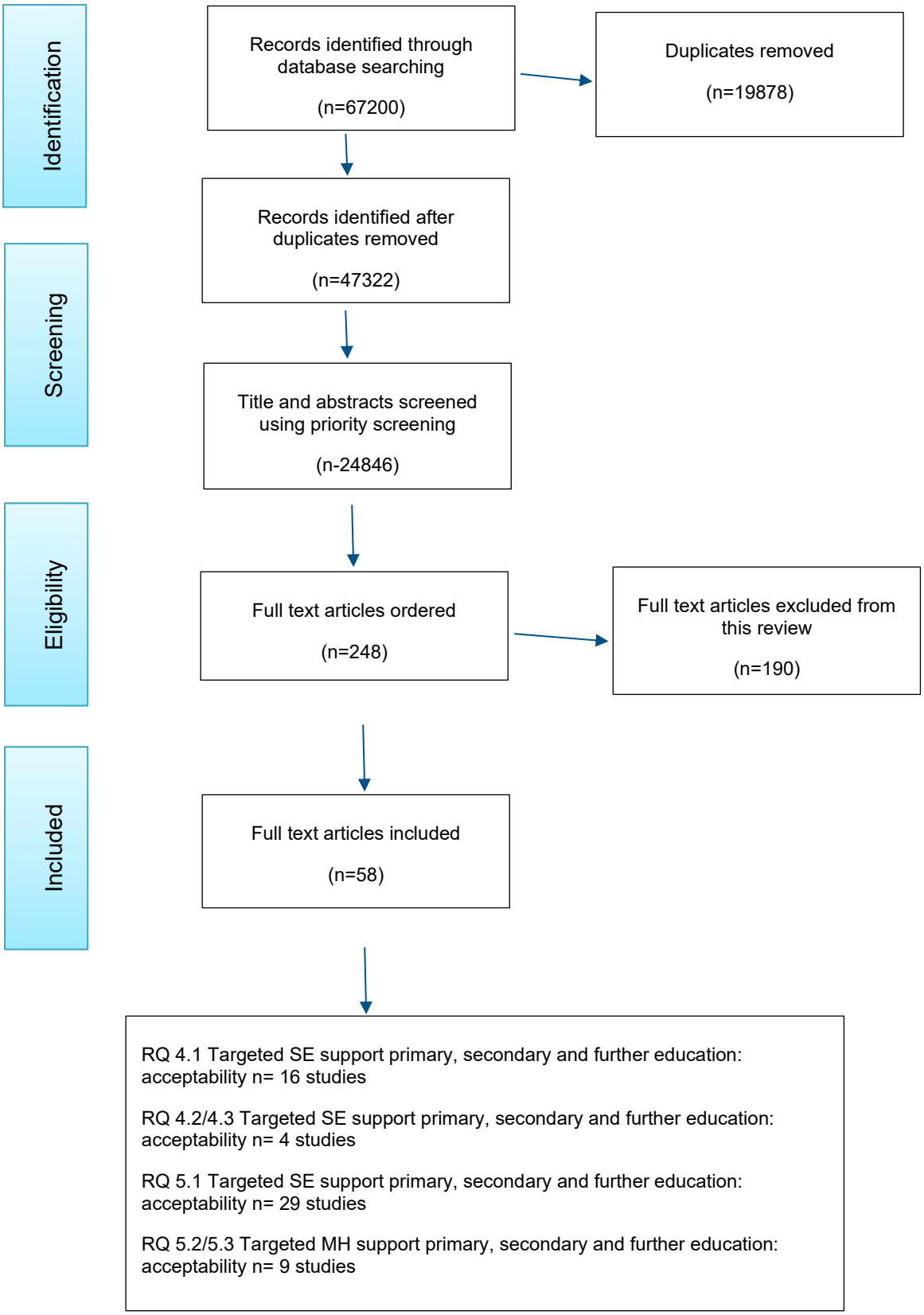
86 limit 85 to english language (10979)

87 limit 86 to (letter or historical article or comment or editorial or news or case reports) (174)

88 86 not 87 (10805)

89 limit 88 to yr="2007 -Current" (7243)

Appendix C: Evidence study selection



Appendix D: Evidence tables:

D.1 Effectiveness studies

D.1.1 Bernal-Manrique, 2020

Bibliographic Reference	Bernal-Manrique, Koryn N; Garcia-Martin, Maria B; Ruiz, Francisco J; Effect of acceptance and commitment therapy in improving interpersonal skills in adolescents: A randomized waitlist control trial.; Journal of Contextual Behavioral Science; 2020; vol. 17; 86-94

Study details

Study design	Randomised controlled trial (RCT)
Trial registration number	Not reported
Study start date	Aug-2018
Study end date	Nov-2018
Aim	To analyse whether a brief, group-based ACT intervention could lead to increases in interpersonal skills as measured by a performance test in adolescents showing problems of social and school adaptation

Country/geographical location	Colombia
Setting	A middle-class, private school in Bogota (Colombia)
Type of school	Secondary school
UK Key stage	Key stage 3 Key stage 4 Post-16
Inclusion criteria	Adolescents from a middle-class, private school in Bogota who were referred to the school psychologist for problems of social and school adaptation. The school psychologist assessed these students with a brief interview and a self-report measure of problems in behaviour adaptation (Behavioural Adaptation Inventory) and provided the researchers with a list of 56 potential participants who were invited to participate in the study.
Exclusion criteria	Not reported
Method of randomisation	The web-based tool Research Randomizer (Urbaniak & Plous, 2013) assisted the randomization procedure. The third author generated the random allocation sequence.
Method of allocation concealment	Not reported
Unit of allocation	Individual

Unit of analysis	Individual
Statistical method(s) used to analyse the data	• Independent sample t-tests and chi square tests were conducted to explore the equivalence of both conditions at pre-treatment. • Repeated measures analyses of variance (RM ANOVA) were computed to analyse the effects of the factors Time (Pre-treatment and Post-treatment) and Condition (ACT vs. WLC) on all dependent variables. • Bonferroni's correction (alpha/number of tests) for multiple testing to prevent Type I error inflation. • values of the • RM ANOVAs were transformed into Cohen's d through an online calculator. • Analyses were rerun with only the participants with high clinical scores on the DASS-Total (25 or over). • The reliable change index (RCI) and clinically significant change (CSC) were computed. • Chi-squared tests were conducted to analyse possible statistically significant differences in the frequency of RCI and CSC between conditions. • Cohen's ds were obtained from the chi-square value.
Attrition	0% attrition across both study arms
Study limitations (author)	• Sample of this study consisted of adolescents from a middle-class, private school, which limits generalisability. • Long-term effects of the RNT-focused ACT protocol are unknown because it was not possible to collect follow-up data due to the end of the school year. • The total score of the Interpersonal Conflict Resolution Assessment (ESCI) is more strongly a function of the ESCI-Solutions because each item is scored on a 0–4 scale, whereas ESCI-Emotions and ESCI-Cause are both scored on a 0–3 scale. • Only one psychologist applied the intervention, which limits generalisability. • No ecological data were collected regarding the participants' interpersonal skills. • The WLC conditions control for hope and expectancies for change but do not control for the potentially beneficial effect of unspecific factors such as attention and support.

Study limitations (reviewer)	Lack of information on exclusion criteria and method of allocation concealment
Source of funding	Not reported

Study arms

Repetitive Negative Thinking-focused Acceptance and commitment therapy (RNT-focused ACT) (N = 21)

Waitlist control (WLC) (N = 21)

Characteristics

Arm-level characteristics

Characteristic	Repetitive Negative Thinking-focused Acceptance and commitment therapy (RNT-focused ACT) (N = 21)	Waitlist control (WLC) (N = 21)
Age (years) Mean (SD)	14.48 (1.89)	14.57 (1.47)
Male Sample size	n = 7 ; % = 33.3	n = 5 ; % = 23.8

Characteristic	Repetitive Negative Thinking-focused Acceptance and commitment therapy (RNT-focused ACT) (N = 21)	Waitlist control (WLC) (N = 21)
Female Sample size	n = 14 ; % = 66.7	n = 16 ; % = 76.2

Outcomes

Study timepoints

- 1 week (Follow-up)

Outcomes

Outcome	Repetitive Negative Thinking-focused Acceptance and commitment therapy (RNT-focused ACT), 1 week, N = 21	Waitlist control (WLC), 1 week, N = 21
Social and emotional skills (0-112) Measured by the Interpersonal Conflict Resolution Assessment (ESCI) (self-reported) Mean (SD)	95.48 (3.28)	70.03 (9.2)
Emotional distress - anxiety and depression Measured by the Depression Anxiety and Stress Scales – 21 (DASS-21) (self-reported) Mean (SD)	23.29 (12.69)	27.48 (13.88)

Social and emotional skills - Polarity - Higher values are better

Emotional distress - anxiety and depression - Polarity - Lower values are better

Study details

Brief name	Repetitive Negative Thinking-focused Acceptance and commitment therapy (RNT-focused ACT). p. 88
Rationale/theory/Goal	Based on the relational frame theory's definition of psychological flexibility and previous similar protocols. p. 89
Materials used	Not reported
Procedures used	The protocol aimed to develop psychological flexibility and, in so doing, emphasised shaping the ability to discriminate ongoing triggers for repetitive negative thinking, take distance from them (i.e., defusion), and behave according to what is most important at that moment for the individual (i.e., values). p. 89
Provider	The intervention led by the first author, who was in the last year of her master's degree in clinical psychology. p. 90
Method of delivery	Groups of approximately 10 participants. p. 90
Setting/location of intervention	Implemented after the school day in a classroom provided by the school. p. 90
Intensity/duration of the intervention	Three, 75-min sessions delivered weekly. p. 89-90
Tailoring/adaptation	None reported

Unforeseen modifications	None reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported

Study details

Brief name	Waitlist control. p. 87
Rationale/theory/Goal	Not reported
Materials used	Not reported
Procedures used	Not reported
Provider	Not reported
Method of delivery	Not reported
Setting/location of intervention	Not reported

Intensity/duration of the intervention	Not reported
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Individual RCT

Section	Question	Answer
Overall bias	Risk of bias judgement (subjective outcomes)	High *(Concerns with lack of adherence data)*
Overall bias	Risk of bias judgement (objective outcomes)	Not applicable

D.1.2 Cooper, 2021

Bibliographic Reference	Cooper, Mick; Stafford, Megan R; Saxon, David; Beecham, Jennifer; Bonin, Eva-Maria; Barkham, Michael; Bower, Peter; Cromarty, Karen; Duncan, Charlie; Pearce, Peter; Rameswari, Tiffany; Ryan, Gemma; Humanistic counselling plus pastoral care as usual versus pastoral care as usual for the treatment of psychological distress in adolescents in UK state schools (ETHOS): a randomised controlled trial.; The Lancet. Child & adolescent health; 2021; vol. 5 (no. 3); 178-189

Study details

Study design	Randomised controlled trial (RCT)
Trial registration number	Not reported
Study start date	29-Sep-2016
Study end date	08-Feb-2018
Aim	To determine the effectiveness and cost-effectiveness of school-based humanistic counselling (SBHC) for the treatment of psychological distress in young people in England, UK.
Country/geographical location	United Kingdom
Setting	18 secondary schools in the Greater London area of the UK (typical age range 11–18 years)

Type of school	Secondary school
UK Key stage	Key stage 3 Key stage 4
Inclusion criteria	Participants aged 13–16 years and had moderate-to-severe levels of emotional symptoms (as indicated by a score of =5 on the Emotional Symptoms subscale of the self-report Strengths and Difficulties Questionnaire [SDQ], range: 0–10) They had an estimated English reading age of at least 13 years, wanted to participate in counselling (as assessed by the assessor at the assessment meeting), had a school attendance record of 85% or higher (to increase likelihood of attending testing meetings), were not currently receiving another therapeutic intervention, and were considered capable of comprehending the outcome measurement forms.
Exclusion criteria	Participants that were incapable of providing informed consent for counselling or their parent or carer had not provided informed consent, they were planning to leave the school within the academic year, or were deemed at risk of serious harm to self or others.
Method of randomisation	The system used the method of permuted blocks within school strata, with adjacent block sizes, varying randomly within prespecified limits (from two to eight)
Method of allocation concealment	Allocation was concealed, done centrally via remote access to a secure randomisation procedure. Follow-up tests were done at weeks 6, 12, and 24, by testers who were masked to the allocations. The statistician who did the analysis was not involved in the administration of the trial, and treatment assignment was coded as non-identifiable categories for the primary analysis.
Unit of allocation	Individual
Unit of analysis	Individual
Statistical method(s) used to analyse the data	• Sample size was calculated to take account of clustering within schools and participants lost to follow-up on the basis of previous pilots.

	• A mixed effects model was fitted to the data with Stata software (version 15) that included randomised group (as a fixed effect), baseline Young Person's Clinical Outcomes in Routine Evaluation (YP-CORE) (as a fixed effect), and school (as a random effect). • Standardised effect sizes, computed by use of the model, were calculated as the difference between groups divided by the baseline pooled SD. • For the primary outcome, an intention-to-treat analysis was adopted with the last observation carried forward to impute YP-CORE scores missing at 12 week follow-up. Where measures were not collected at 12 weeks, participants' scores were imputed. • Various sensitivity analyses were conducted for the primary outcome.
Attrition	Overall attrition by study arm calculated from the CONSORT diagram. School-based humanistic counselling (SBHC) + pastoral care as usual (PCAU): 123/167 = 26.3% attrition Pastoral care as usual (PCAU): 153/162 = 5.6% attrition (Attrition varied across different outcome measurements)

Study limitations (author)	• Generalisability was limited by:
	  ○ Poor school attenders, young people at risk of serious harm to self or others and those already receiving psychological interventions were excluded from the study.
	  ○ An absence of precise data on the numbers excluded at pre screening.
	• Measures were predominantly self-reported and those that were not did not show significant effects.
	• Masking of participants to condition was not possible.
	• The authors could not disentangle the effects of humanistic counselling from generic counselling provision or other forms of attentional control, because no active control was used.

	• There is no consensus on the magnitude that represents clinically significant benefit in young people.
Study limitations (reviewer)	None to add
Source of funding	• This work was supported by the Economic and Social Research Council [grant reference ES/M011933/1]. • The Chief Investigator would also like to acknowledge additional funding to support the team from the University of Roehampton (London, UK), the British Association for Counselling and Psychotherapy (Lutterworth, UK), and the Metanoia Institute (London, UK).

Study arms

School-based humanistic counselling (SBHC) + pastoral care as usual (PCAU) (N = 167)

Pastoral care as usual (PCAU) (N = 162)

Characteristics

Arm-level characteristics

Characteristic	School-based humanistic counselling (SBHC) + pastoral care as usual (PCAU) (N = 167)	Pastoral care as usual (PCAU) (N = 162)
Age (years) Mean (SD)	13.7 (0.8)	13.8 (0.8)
Male Sample size	n = 37 ; % = 22	n = 32 ; % = 20
Female Sample size	n = 127 ; % = 76	n = 129 ; % = 80
Other Sample size	n = 3 ; % = 2	n = 1 ; % = 1
White Sample size	n = 90 ; % = 54	n = 88 ; % = 54
Asian or Asian British Sample size	n = 16 ; % = 10	n = 15 ; % = 9
African, Caribbean, or Black British Sample size	n = 27 ; % = 16	n = 30 ; % = 19

Characteristic	School-based humanistic counselling (SBHC) + pastoral care as usual (PCAU) (N = 167)	Pastoral care as usual (PCAU) (N = 162)
Mixed Sample size	n = 29 ; % = 17	n = 23 ; % = 14
Other Sample size	n = 4 ; % = 2	n = 5 ; % = 3
Data missing Sample size	n = 1 ; % = 1	n = 1 ; % = 1
No disability Sample size	n = 142 ; % = 85	n = 136 ; % = 84
Has a disability Sample size	n = 23 ; % = 14	n = 22 ; % = 14
Data missing Sample size	n = 2 ; % = 1	n = 4 ; % = 2

Outcomes

Study timepoints

- 24 week (Follow-up)

Outcomes

Outcome	School-based humanistic counselling (SBHC) + pastoral care as usual (PCAU), 24 week, N = 167	Pastoral care as usual (PCAU), 24 week, N = 162
SDQ (emotional symptoms, conduct problems, hyperactivity, peer problems) total (0-40) Self-reported Sample size	n = 150 ; % = 89.8	n = 154 ; % = 95.1
SDQ (emotional symptoms, conduct problems, hyperactivity, peer problems) total (0-40) Self-reported Mean (SD)	17.21 (5.64)	17.95 (5.36)
Emotional distress - anxiety and depression Measured by the Revised Children's Anxiety and Depression Scale score (self-reported) Sample size	n = 151 ; % = 90.4	n = 154 ; % = 95.1
Emotional distress - anxiety and depression Measured by the Revised Children's Anxiety and Depression Scale score (self-reported) Mean (SD)	26.42 (13.66)	28.26 (11.49)
School exclusions Sample size	n = 149 ; % = 89.2	n = 152 ; % = 93.8

Outcome	School-based humanistic counselling (SBHC) + pastoral care as usual (PCAU), 24 week, N = 167	Pastoral care as usual (PCAU), 24 week, N = 162
School exclusions Mean (SD)	0.13 (0.65)	0.16 (0.48)

SDQ (emotional symptoms, conduct problems, hyperactivity, peer problems) total - Polarity - Lower values are better

Emotional distress - anxiety and depression - Polarity - Lower values are better

School exclusions - Polarity - Lower values are better

Study details

Brief name	School-based humanistic counselling plus pastoral care as usual (SBHC +PCAU). p. 181
Rationale/theory/Goal	SBHC is a manualised form of humanistic therapy based on evidence-based competences for humanistic counselling with young people aged 11–18 years. p. 180
Materials used	SBHC manual. p. 181
Procedures used	SBHC counsellors use a range of techniques, including active listening, empathic reflections, and inviting young people to express underlying emotions and needs. In this trial, SBHC also included weekly use of an outcome feedback tool, the Outcomes Rating Scale, so that counsellors and young people could discuss their progress during therapy. p. 181

Provider	SBHC was delivered by a pool of 19 counsellors. p. 181
Method of delivery	Sessions were delivered on an individual face-to-face basis. p. 181
Setting/location of intervention	Not reported
Intensity/duration of the intervention	45–60 min sessions scheduled weekly for up to 10 school weeks. p. 181
Tailoring/adaptation	None reported
Unforeseen modifications	None reported
Planned treatment fidelity	Counsellors received a minimum of 4 days of group training with 1 additional day's training in the research protocols. Adherence to SBHC was assessed by two independent auditors by use of a young person's adapted version of the Person Centred and Experiential Psychotherapy Rating Scale. All counsellors received one-to-one clinical supervision throughout the trial, approximately 1 h every 2 weeks. p. 181
Actual treatment fidelity	The mean adherence rating for counsellors was 4·6 on this 6-point scale (SD 0·3), with all counsellors exceeding the pre defined adherence cut-off point, based on literature on this scale, of 3·5 (range 3·9–5·1). p. 181

Study details

Brief name	Pastoral care as usual (PCAU). p. 181

Rationale/theory/Goal	Not reported
Procedures used	• Pastoral care could vary substantially across schools and pupils, and the authors did not attempt to standardise it. • Typically, this care involved time with school staff, such as learning and behavioural support, class teachers, pastoral care managers, and heads of year. • In some instances, the service could also involve referral to community-based specialists, such as social workers or police liaison office. • Amount of support could vary considerably, from single, one-off meetings of 5 mins or less, to 1 day or more of ongoing help (eg, with a learning support mentor). p. 181-182
Provider	Not reported
Method of delivery	Not reported
Setting/location of intervention	Not reported
Intensity/duration of the intervention	Not reported
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	Not reported

Actual treatment fidelity	Not reported

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Individual RCT

Section	Question	Answer
Overall bias	Risk of bias judgement (subjective outcomes)	Some concerns *(Some concerns surrounding subjective outcomes)*
Overall bias	Risk of bias judgement (objective outcomes)	Some concerns

D.1.3 Franco, 2016

Bibliographic Reference	Franco, Clemente; Amutio, Alberto; Lopez-Gonzalez, Luis; Oriol, Xavier; Martinez-Taboada, Cristina; Effect of a Mindfulness Training Program on the Impulsivity and Aggression Levels of Adolescents with Behavioral Problems in the Classroom; Frontiers in psychology; 2016; vol. 7; 1385

Study details

Study design	Randomised controlled trial (RCT)
Trial registration number	Not reported
Aim	The aim of this study is to prove the effect of a mindfulness training psycho-educational program applied to a group of adolescents with behavioral problems in the classroom on their impulsivity and aggression levels
Country/geographical location	Granada, Spain
Setting	Public high school
Type of school	Secondary school
UK Key stage	Key stage 4
Inclusion criteria	Students that had been sent to the counselling room more than 5 times during the first term os the school year due to the misbehaviour in the classroom
Exclusion criteria	Not reported
Method of randomisation	Randomisation methods not reported
Method of allocation concealment	Not reported
Unit of allocation	Individual

Unit of analysis	Individual
Statistical method(s) used to analyse the data	The mean scores of the control and experimental group in the different dimensions of impulsivity and aggression in each stage of the study was proved by means of the non-parametric statistical test Mann–WhitneyU for independent samples.
Attrition	Not reported
Study limitations (author)	Small sample size
Study limitations (reviewer)	• Attrition not reported • Results are post-intervention only
Source of funding	National R+D Plan of the Ministry of Economy and Finance

Study arms

Experimental (N = 13)

Control (N = 13)

Characteristics

Study-level characteristics

Characteristic	Study (N = 27)
Age (years) Mean (SD)	15.85 (2.38)

Arm-level characteristics

Characteristic	Experimental (N = 13)	Control (N = 13)
Male Sample size	n = 8 ; % = 62	n = 8 ; % = 57
Female Sample size	n = 5 ; % = 38	n = 6 ; % = 43

Outcomes

Study timepoints

- Baseline
- 10 week

Behavioural outcomes

Outcome	Experimental , Baseline, N = 13	Experimental , 10 week, N = 13	Control, Baseline, N = 14	Control, 10 week, N = 14
Impulsivity (total) Barratt Impulsivity Scale (BIS-11) Mean (SD)	82.49 (10.27)	71.2 (9.16)	84.22 (11.04)	82.89 (11.04)
Aggression (physical) Aggression Questionnaire (AQ) Mean (SD)	28.07 (5.49)	24.17 (4.14)	27.21 (5.28)	26.87 (4.51)

Impulsivity (total) - Polarity - Lower values are better

Aggression (physical) - Polarity - Lower values are better

Study details

Brief name	**Franco 2016 page 3** Mindfulness training psycho-educational programme
Rationale/theory/Goal	**Franco 2016 page 4**

	Mindfulness-based interventions have been associated with with numerous beneficial outcomes in emotional regulation, including decreased anxiety, depression and anger expression reduction. The goal is attempting neither to control thoughts, sensations or feeling nor altering or change them by new ones, but instead let them free to come and go, and accepting any personal sensation and feeling that may arise spontaneously.
Materials used	Not reported
Procedures used	**Franco 2016 page 4** • Consisted of the learning and daily practice of a mindfullness technique called Meditacion Fluir
Provider	Not provided
Method of delivery	**Franco 2016 page 4** • individual, face to face
Setting/location of intervention	**Franco 2016 page 4** During counselling sessions
Intensity/duration of the intervention	**Franco 2016 page 4** 10 weekly sessions for 15 mins
Tailoring/adaptation	Not reported

Unforeseen modifications	Not reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported
Other details	Not reported

Study details

Brief name	**Franco 2016 page 1** Waiting list
Rationale/theory/Goal	Not applicable
Materials used	Not applicable
Procedures used	**Franco 2016 page 4** The mindfulness-based training programme was given to the control group at the end of the study
Provider	Not applicable

Method of delivery	Not applicable
Setting/location of intervention	Not applicable
Intensity/duration of the intervention	Not applicable
Tailoring/adaptation	Not applicable
Unforeseen modifications	Not applicable
Planned treatment fidelity	Not applicable
Actual treatment fidelity	Not applicable
Other details	Not applicable

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Individual RCT

Section	Question	Answer
Overall bias	Risk of bias judgement (subjective outcomes)	High *(Single school where the school staff were responsible for selection. Randomisation methods and attrition not reported)*
Overall bias	Risk of bias judgement (objective outcomes)	Not applicable

D.1.4 Humphrey, 2010a

Bibliographic Reference	Humphrey, Neil; Kalambouka, Afroditi; Wigelsworth, Michael; Lendrum, Ann; Going for goals: An evaluation of a short, social-emotional intervention for primary school children.; School Psychology International; 2010; vol. 31 (no. 3); 250-270

Study details

Study design	Non-randomised controlled trial (NRCT)
Trial registration number	Not reported
Aim	To investigate the impact of Going for Goals on childrens' social and emotional skills, behaviour and emotional well-being.
Country/geographical location	England, UK

Setting	22 primary schools in 12 Local Authorities
Type of school	Primary school
UK Key stage	Key stage 1 Key stage 2
Inclusion criteria	Identified by school staff as needing extra support if they'appear uninterested in learning and unmotivated to achieve in school'
Exclusion criteria	None
Method of randomisation	Not applicable
Method of allocation concealment	None
Unit of allocation	Individual
Unit of analysis	Individual
Statistical method(s) used to analyse the data	• T-tests • Analyses of co-variance (ANCOVAs)
Attrition	Final analysis sample was 34/182 (18.6%) due to poor parental response rates

Study limitations (author)	Poor parental response rate
Study limitations (reviewer)	• High attrition • Did not report numbers of children in each group needing extra support
Source of funding	Not reported

Study arms

Intervention (N = 102)

Control (N = 80)

Characteristics

Study-level characteristics

Characteristic	**Study (N = 182)**
Age Mean (SD)	8.25 (NR)

Characteristic	Study (N = 182)
Male Sample size	n = 103 ; % = 56.6
Female Sample size	n = 79 ; % = 43.4
Needing extra support Population of interest Sample size	n = 128 ; % = 70.3

Outcomes

Study timepoints

- Baseline
- 8 week (From baseline)

Social and emotional skills, knowledge and attitudes

Outcome	Intervention, Baseline, N = NR	Intervention, 8 week, N = NR	Control, Baseline, N = NR	Control, 8 week, N = NR
Child self report Mean (SD)	77.76 (8.88)	80.12 (9.32)	73.21 (13.87)	75 (11.1)

Outcome	Intervention, Baseline, N = NR	Intervention, 8 week, N = NR	Control, Baseline, N = NR	Control, 8 week, N = NR
Staff rated Mean (SD)	53.51 (10.61)	59.38 (8.97)	53.7 (11.6)	57.05 (9.52)
Parent rated Mean (SD)	72.44 (6.29)	70.11 (6.6)	71 (10.95)	65.15 (16.31)

Social and emotional skills - Polarity - Higher values are better

Behavioural outcomes

Outcome	Intervention, Baseline, N = NR	Intervention, 8 week, N = NR	Control, Baseline, N = NR	Control, 8 week, N = NR
Staff rated Mean (SD)	12.54 (6.99)	9.1 (5.49)	13.38 (6.96)	11.77 (7)
Parent rated Mean (SD)	10.33 (3.87)	11.11 (5.62)	13.62 (6.63)	10.92 (4.79)
Staff rated Mean (SD)	4.62 (2.21)	5.25 (2.02)	5.03 (2.07)	5.16 (1.79)
Parent rated Mean (SD)	8.44 (1.33)	8.67 (1.22)	8.31 (1.8)	7.85 (2.82)

SDQ (emotional symptoms, conduct problems, hyperactivity, peer problems) total - Polarity - Lower values are better

SDQ (Prosocial subscale) - Polarity - Higher values are better

Study details

Brief name	**Humphrey 2010a page 256** Going for Goals
Rationale/theory/Goal	**Humphrey 2010a page 256** To help children to 'take responsibility for their learning and to develop goal directed behaviour. It is designed to help children to form a group that offers mutual support to the members beyond the duration of the group'
Materials used	**Humphrey 2010a page 256** The SEAL small group work guidance provides a range of 'off the shelf ' core activities (Department for Education and Skills, 2006)
Procedures used	**Humphrey 2010a page 256** Each session follows a standard format: 1. Welcome and check-in – children are welcomed and given the opportunity to say or show how they are feeling. 2. Warm-up activities – typically short games 3. Reminder of group aims and behavioural expectations 4. Review of previous week 5. Plan for current session 6. Core activity – children participate in a core activity relating to the SEAL theme being addressed (e.g. Going for Goals).

	7. Review and reflection 8. Plans for coming week. 9. Relaxation – children are given the opportunity to relax through oneof a variety of guided exercises.
Provider	**Humphrey 2010a page 256** • Teacher or learning mentor
Method of delivery	**Humphrey 2010a page 256** Small groups
Setting/location of intervention	**Humphrey 2010a page 256** School (not further described)
Intensity/duration of the intervention	**Humphrey 2010a page 256** 8 weeks x 45mins sessions
Tailoring/adaptation	None
Unforeseen modifications	None
Planned treatment fidelity	None

Actual treatment fidelity	None
Other details	None

Study details

Brief name	**Humphrey 2010a page 255** No intervention comparison group
Rationale/theory/Goal	Not applicable
Materials used	Not applicable
Procedures used	Not applicable
Provider	Not applicable
Method of delivery	Not applicable
Setting/location of intervention	Not applicable
Intensity/duration of the intervention	Not applicable

Tailoring/adaptation	Not applicable
Unforeseen modifications	Not applicable
Planned treatment fidelity	Not applicable
Actual treatment fidelity	Not applicable
Other details	Not applicable

Critical appraisal - ROBINS-I: a tool for assessing risk of bias in non-randomised studies of interventions

Section	Question	Answer
Overall bias	Risk of bias judgement	Serious

D.1.5 Humphrey, 2010b

Bibliographic Reference	Humphrey, Neil; Kalambouka, Afroditi; Wigelsworth, Michael; Lendrum, Ann; Lennie, Clare; Farrell, Peter; New beginnings: Evaluation of a short social-emotional intervention for primary-aged children.; Educational Psychology; 2010; vol. 30 (no. 5); 513-532

Study details

Study design	Non-randomised controlled trial (NRCT)
Trial registration number	None reported
Aim	To address the following questions: • RQ1 – What is the impact of the New Beginnings intervention on children's social and emotional competence? • RQ2 – What is the impact of the New Beginnings intervention on children's mental health difficulties? • RQ3 – Is there a difference in reported impact between children selected for extra support and those selected as role models?
Country/geographical location	England, UK
Setting	37 primary schools
Type of school	Primary school
UK Key stage	Key stage 2
Inclusion criteria	Children who were considered as needing extra support by school staff defined as those who 'might feel they don't belong in the class group' This might because:

	• they have recently joined the school • they have found it difficult to settle down into the new class • they have expressed feelings of isolation or loneliness • the class seem to be leaving them out • they have experienced a considerable change in life
Exclusion criteria	None reported
Method of randomisation	Not applicable
Method of allocation concealment	Not applicable
Unit of allocation	Individual
Unit of analysis	Individual
Statistical method(s) used to analyse the data	• Chi-square analyses and independent t-tests to assess differences between groups • Mixed ANOVAS
Attrition	Not reported for post-test data Incomplete for 7 week follow up (n=64) (intervention group only)
Study limitations (author)	• Unable to assess treatment fidelity • Unable to carry out a blinded RCT

Study limitations (reviewer)	• Attrition data incomplete so unable to determine how many participants were included in the analysis • No comparative data for 7 week follow up (only post-test data available).
Source of funding	Not reported

Study arms

Intervention (N = 114)

Control (N = 77)

Characteristics

Arm-level characteristics

Characteristic	**Intervention (N = 114)**	**Control (N = 77)**
Age (Months) Nominal	96	96
Male Sample size	n = 69 ; % = 60.5	n = 48 ; % = 62.3

Characteristic	Intervention (N = 114)	Control (N = 77)
Female Sample size	n = 45 ; % = 39.5	n = 29 ; % = 37.7

Outcomes

Study timepoints

- Baseline
- 7 week (From baseline)

Social and emotional skills, knowledge and attitudes

Outcome	Intervention, Baseline, N = 114	Intervention, 7 week, N = NR	Control, Baseline, N = 77	Control, 7 week, N = NR
Child self report Mean (SD)	73.12 (9.99)	75.27 (10.7)	75.47 (10.62)	73.97 (10.1)
Teacher rated Mean (SD)	54.02 (11.87)	56.42 (10.27)	54.7 (12.5)	55.35 (12.16)
Parent rated Mean (SD)	67.41 (13.37)	68 (10.66)	70.75 (9.09)	71.05 (10.14)

Social and emotional competence - Polarity - Higher values are better

Behavioural outcomes

Outcome	Intervention, Baseline, N = 114	Intervention, 7 week, N = NR	Control, Baseline, N = 77	Control, 7 week, N = NR
Teacher rated Mean (SD)	13.26 (6.94)	12.02 (6.95)	11.44 (7.42)	12.02 (6.66)
Parent rated Mean (SD)	12.22 (7.11)	12.3 (8.22)	10.75 (6.23)	12.3 (6.64)
Teacher rated Mean (SD)	5.75 (2.6)	5.03 (1.93)	5.71 (2.76)	4.94 (2.03)
Parent rated Mean (SD)	7.84 (2.02)	7.53 (2.02)	8.02 (1.72)	8.18 (1.5)

SDQ (emotional symptoms, conduct problems, hyperactivity, peer problems) total - Polarity - Lower values are better

SDQ (Prosocial subscale) - Polarity - Higher values are better

Study details

Brief name	**Humphrey 2010 page 520**

	New Beginnings
Rationale/theory/Goal	**Humphrey 2010 page 516** To help children by facilitating their personal development, exploring key issues with them in more depth, allowing them to practice new skills in an environment in which they feel safe, can take risks, and learn more about themselves, developing their ways of relating to others, and promoting reflection
Materials used	Not reported
Procedures used	**Humphrey 2010 page 520** • Children explore feelings of happiness and excitement, sadness, anxiety and fearfulness, while learning) shared models for “calming down” and “problem solving”’ • Each session follows a standard format: 1. Welcome and check-in 2. Warm-up activities – typically short games designed to increase groupcohesion and practice key skills such as turn-taking and listening. 3. Reminder of group aims and behavioural expectations 4. Review of previous week. 5. Plan for current session 6. Core activity – children participate in a core activity relating to the SEAL 7. Review and reflection 8. Plans for coming week – the group facilitator will suggest a task that children 9. Relaxation
Provider	**Humphrey 2010 page 520** Teaching assistant or learning mentor

Method of delivery	**Humphrey 2010 page 521** Small groups
Setting/location of intervention	**Humphrey 2010 page 520** Quiet withdrawal room away from the regular classroom
Intensity/duration of the intervention	**Humphrey 2010 page 520** 7 x weekly 45min sessions
Tailoring/adaptation	None reported
Unforeseen modifications	Nor reported
Planned treatment fidelity	Not conducted
Actual treatment fidelity	Not applicable
Other details	None

Study details

Brief name	**Humphrey 2010 page 518** Naturally occuring comparison group
Rationale/theory/Goal	Not applicable
Materials used	Not applicable
Procedures used	Not applicable
Provider	Not applicable
Method of delivery	Not applicable
Setting/location of intervention	Not applicable
Intensity/duration of the intervention	Not applicable
Tailoring/adaptation	Not applicable
Unforeseen modifications	Not applicable
Planned treatment fidelity	Not applicable

Actual treatment fidelity	Not applicable
Other details	Not applicable

Critical appraisal - ROBINS-I: a tool for assessing risk of bias in non-randomised studies of interventions

Section	Question	Answer
Overall bias	Risk of bias judgement	Moderate

D.1.6 Knowler, 2013

Bibliographic Reference	Knowler, Claire; Frederickson, Norah; Effects of an emotional literacy intervention for students identified with bullying behaviour.; Educational psychology; 2013; vol. 33 (no. 7); 862-883

Study details

Study design	Randomised controlled trial (RCT)

Trial registration number	Not reported
Aim	To evalutate the effectiveness of a 12 week small group emotional literacy intervention in reducing bullying behaviour in school
Country/geographical location	UK
Setting	4 Primary schools
Type of school	Primary school
UK Key stage	Key stage 2
Inclusion criteria	• Children identified by peer nomination measure of engagement in bullying behaviour (identified by at least 10% of classmates)
Exclusion criteria	None reported
Method of randomisation	Coin toss
Method of allocation concealment	Not reported
Unit of allocation	Individual

Unit of analysis	Individual
Statistical method(s) used to analyse the data	Three mixed ANOVAs
Attrition	Not reported
Study limitations (author)	• Nested within schools so multilevel analysis would have been preferred • Small sample size although power for primary outcome was met • Its not possible to tell whether the additional adult attention for example was contributor of effectiveness • The reliabilty coefficients of some of the outcome measures was low
Study limitations (reviewer)	None to add
Source of funding	Not reported

Study arms

Intervention (N = 22)

Control (N = 23)

Characteristics

Study-level characteristics

Characteristic	Study (N = 45)
Age (years) Range	8 to 9

Arm-level characteristics

Characteristic	Intervention (N = 22)	Control (N = 23)
Male Sample size	n = 18 ; % = 81.8	n = 21 ; % = 91.3
Female Sample size	n = 4 ; % = 18.2	n = 2 ; % = 8.7
White British Sample size	n = 15 ; % = 68	n = 15 ; % = 65
Black Caribbean and African Sample size	n = 3 ; % = 14	n = 5 ; % = 23
Indian	n = 2 ; % = 9	n = 1 ; % = 4

Characteristic	Intervention (N = 22)	Control (N = 23)
Sample size		
Other minority ethnicity and mixed heritage Sample size	n = 2 ; % = 9	n = 2 ; % = 9
Eligibile for free school meals Sample size	n = 0 ; % = 0	n = 3 ; % = 13
SEND Low level SEND Sample size	n = 8 ; % = 36	n = 7 ; % = 31

Outcomes

Study timepoints

- Baseline
- 12 week (From baseline)

Behavioural outcomes

Outcome	Intervention, Baseline, N = 22	Intervention, 12 week, N = 22	Control, Baseline, N = 23	Control, 12 week, N = 23
SDQ (emotional symptoms, conduct problems, hyperactivity, peer problems) total (score per item 0-10); imputed by reviewer Mean (SD)	20.46 (4.79)	20.12 (4.83)	20.5 (5.91)	19.46 (6.46)
Low emotional literacy Mean (SD)	23.91 (4.87)	22.89 (4.99)	21.91 (5.03)	19.56 (6.95)
High emotional literacy Mean (SD)	17 (4.71)	18.1 (6.71)	18.33 (4.64)	19.36 (5.97)
SDQ (Prosocial subscale) (score per item 0-10); imputed by reviewer Mean (SD)	6.96 (1.99)	6.47 (1.92)	5.69 (2.98)	6.11 (3.01)
Low emotional literacy Mean (SD)	6.18 (2.56)	6.33 (2.12)	4.55 (2.59)	5.67 (3.12)
High emotional literacy Mean (SD)	7.73 (1.19)	6.6 (1.71)	6.83 (3.3)	6.55 (2.91)

SDQ (emotional symptoms, conduct problems, hyperactivity, peer problems) total - Polarity - Lower values are better

SDQ (Prosocial subscale) - Polarity - Higher values are better

Study details

Brief name	**Knowler 2013 page 869** Emotional literacy program
Rationale/theory/Goal	**Knowler 2013 page 866** To increase levels of emotional literacy by reducing bullying and victimisation
Materials used	**Knowler 2013 page 869** EL skills were taken from the Emotional Literacy Assessment and Intervention Ages 7-11 pack
Procedures used	**Knowler 2013 page 869** Focused on four sections: 1. Developing self-awareness 2. Learning about self-regulation 3. Enhancing empathy 4. Improving social skills
Provider	**Knowler 2013 page 869** Teaching aids

Method of delivery	**Knowler 2013 page 869** • Small groups (2 groups of 5 children and 2 groups of 6 children)
Setting/location of intervention	**Knowler 2013 page 869** School classroom
Intensity/duration of the intervention	**Knowler 2013 page 869** 12 weeks x 1 session lasting 45-60 mins
Tailoring/adaptation	None reported
Unforeseen modifications	None reported
Planned treatment fidelity	**Knowler 2013 page 869** • Discussion of a record completed by the school staff to show how closely each session adhered to the lesson plan • Periodic observation by the first author and the scrutiny of pupil worksheets • Fidelity questionnaire was completd for each session
Actual treatment fidelity	**Knowler 2013 page 869** Median session ratings were 'good' for 2 schools and 'very good' for the other 2 schools
Other details	None

Study details

Brief name	**Knowler 2013 page 867** Wait-list control
Rationale/theory/Goal	Not applicable
Materials used	Not applicable
Procedures used	**Knowler 2013 page 867** Children on wait-list control remained with class teachers following their normal classroom curriculum
Provider	Not applicable
Method of delivery	Not applicable
Setting/location of intervention	Not applicable
Intensity/duration of the intervention	Not applicable
Tailoring/adaptation	Not applicable
Unforeseen modifications	Not applicable

Planned treatment fidelity	Not applicable
Actual treatment fidelity	Not applicable
Other details	Not applicable

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Individual RCT

Section	Question	Answer
Overall bias	Risk of bias judgement (subjective outcomes)	Some concerns
Overall bias	Risk of bias judgement (objective outcomes)	Not applicable

D.1.7 McDaniel, 2018

Bibliographic Reference	McDaniel, Sara C.; Lochman, John E.; Tomek, Sara; Powell, Nicole; Irwin, April; Kerr, Shani; Reducing Risk for Emotional and Behavioral Disorders in Late Elementary School: A Comparison of Two Targeted Interventions; Behavioral Disorders; 2018; vol. 43 (no. 3); 370-382

Study details

Study design	Non-randomised controlled trial (NRCT)
Trial registration number	Not reported
Aim	The purpose of the current study is to compare the effects of CICO with a transdiagnostic social-cognitive intervention (Coping Power) and a control group.
Country/geographical location	USA
Setting	Urban public elementary school
Type of school	Primary school
UK Key stage	Key stage 2
Inclusion criteria	• Grades 3 to 5 • nominated by classroom teacher as displaying elevated levels of disruptive behavior • scores in the elevated or high risk categories on the Strengths and Difficulties Questionnaire (SDQ) screener in at least one deficit area
Exclusion criteria	Not reported
Method of randomisation	Not applicable

Method of allocation concealment	None
Unit of allocation	Individual
Unit of analysis	Individual
Statistical method(s) used to analyse the data	• Cochran–Mantel–Haenszel chi-square test • Mixed model ANOVAs
Attrition	Not reported
Study limitations (author)	• Not randomised • Underpowered with only 33 participants • Difficulty with treatment fidelity for CICO • Did not offer full parent participation for Coping Power
Study limitations (reviewer)	Attrition not reported Follow-up time not specified
Source of funding	Grants from The University of Alabama's Research Grants Committee

Study arms

CICO (N = 7)

Coping Power (N = 13)

Control (N = 13)

Characteristics

Study-level characteristics

Characteristic	**Study (N = 33)**
Age (years) Range	8 to 11
Male Sample size	n = 29 ; % = 88
Female Sample size	n = 4 ; % = 12

Characteristic	Study (N = 33)
African American Sample size	n = 33 ; % = 100
SEND Sample size	n = 7 ; % = 21

Outcomes

Study timepoints

- Baseline
- 12 week (Exact time not specified but was at the end of the second semester (around 3 months))

Behavioural outcomes

Outcome	CICO, Baseline, N = 7	CICO, 12 week, N = 7	Coping Power, Baseline, N = 13	Coping Power, 12 week, N = 13	Control, Baseline, N = 13	Control, 12 week, N = 13
SDQ (emotional symptoms, conduct problems, hyperactivity, peer problems) total Teacher rated	13 (2.19)	13.57 (2.22)	18.46 (1.61)	14.46 (1.63)	14.77 (1.61)	16.23 (1.63)

Outcome	CICO, Baseline, N = 7	CICO, 12 week, N = 7	Coping Power, Baseline, N = 13	Coping Power, 12 week, N = 13	Control, Baseline, N = 13	Control, 12 week, N = 13
Mean (SD)						
SDQ (Prosocial subscale) Mean (SD)	6.71 (0.68)	6.14 (0.79)	4.69 (0.52)	6.31 (0.58)	5.54 (0.5)	5.31 (0.58)
External Mean (SD)	65.86 (3.83)	59.71 (4.57)	67.38 (2.81)	59.62 (3.35)	63.62 (2.81)	69.38 (3.35)
Aggression Mean (SD)	66.86 (4.08)	61 (5.21)	68.77 (2.89)	59.62 (3.35)	60.46 (2.99)	71.62 (3.82)
Hyperactivity Mean (SD)	63.43 (5.36)	56.43 (4.86)	64.92 (3.94)	57.69 (3.57)	55.08 (3.94)	63.92 (3.57)
Conduct Mean (SD)	64.29 (3.21)	59.57 (5.69)	35.69 (2.36)	54.85 (4.18)	62.62 (2.36)	69.38 (4.18)

SDQ (emotional symptoms, conduct problems, hyperactivity, peer problems) total - Polarity - Lower values are better

SDQ (Prosocial subscale) - Polarity - Higher values are better

BASC-2 - Polarity - Lower values are better

Study arms

CICO (N = 7)

Brief name	**McDaniel 2018 page 371** Check-In/Check-Out (CICO)
Rationale/theory/Goal	**McDaniel 2018 page 371** Designed for students who display nonthreatening, conduct-related challenging behavior. Critical features of CICO include: • clearly defined behavioral expectations that build on schoolwide expectations, • a structured mechanism to provide frequent feedback on social behavior • increased opportunities for contingent reinforcement • positive social interactions between students and adults in the school
Materials used	**McDaniel 2018 page 373** Daily Progress Report
Procedures used	**McDaniel 2018 page 373** • At the beginning of the day, students met with their classroom teacher, who was their assigned coach, to check-in and fill out their Daily Progress Report (DPR) with behavior goals. • Throughout the day, teachers rated students' behavior 5 times according to the SOAR expectations on a scale of 0, 1, or 2 to indicate the degree to which the student met each of the guidelines at that particular time. • At the end of the day, students checked out with teachers to calculate their score for the day and see if they met their daily behavior goal. • For all CICO participants, the daily DPR goal was 80% of possible points.

	• If they met this goal, students received a reward that had been negotiated with their teacher at check-in (e.g., 5 min of extra computer time, 2 bonus points).
Provider	**McDaniel 2018 page 373** Class teacher
Method of delivery	**McDaniel 2018 page 373** Individual
Setting/location of intervention	**McDaniel 2018 page 373** Classroom
Intensity/duration of the intervention	**McDaniel 2018 page 373** Twice daily (check-in and check out) for 16 weeks
Tailoring/adaptation	**McDaniel 2018 page 373** Slightly modified the school–home component of CICO such that parents were notified of progress by the classroom teachers using their existing communication procedure of a daily take-home note; rather than being sent home
Unforeseen modifications	None
Planned treatment fidelity	**McDaniel 2018 page 373** • One checklist was for evaluating the check-in and the other for the check-out procedures.

	• Four items evaluated for the check-in were (a) greeting the student, (b) providing new CICO form, (c) giving praise, and (d) reviewing daily goal. • The check-out procedures evaluated were (a) greeting students, (b) collecting CICO form, (c) reviewing progress report, (d) recording total earned and percent, (e)signing the sheet as coach, and (f) dismissing student. • Fidelity observations were conducted by four trained research assistants. • Observers rated the teachers' completion of each of these tasks as being in place (2), partially in place (1), or not in place (0).
Actual treatment fidelity	**McDaniel 2018 page 373** The overall rate of check-in and check-out implementation was 78% (range of 55% to 100%) across observations. Teachers who were observed performing less than 80% fidelity were provided reminders and guidance from the data collectors in an attempt to improve future implementation integrity.
Other details	None

Coping Power (N = 13)

Brief name	**McDaniel 2018 page 371** Coping Power (CP)
Rationale/theory/Goal	**McDaniel 2018 page 371** • Evidence-based cognitive-behavioral intervention developed for aggressive at-risk preadolescent children in school-based prevention studies.

	• CP is based on the contextual social-cognitive model of childhood aggression that assumes impaired social information processing puts preadolescentaggressive children at risk for negative outcomes such as delinquency, substance abuse, and conduct problems during adolescence. • The model also assumes parental risk factors are associated with childhood aggression and that changes in the contextual social-cognitive processes can result in improved behavioral outcomes during adolescence.
Materials used	Not reported
Procedures used	**McDaniel 2018 page 373** • The first 16 CP lessons developed a foundation for teaching participants about their feelings. • The six booster sessions covered advanced skills and additional practice of the foundational 16 lessons, and were delivered in the beginning of the second semester. • The final four CP lessons were condensed to two sessions
Provider	**McDaniel 2018 page 373** CP interventionists
Method of delivery	**McDaniel 2018 page 373** Small group, face to face
Setting/location of intervention	**McDaniel 2018 page 373** Students were taken out of their regular classroom
Intensity/duration of the intervention	**McDaniel 2018 page 373** 1 hour per week for 16 weeks followed by 6 booster sessions

Tailoring/adaptation	**McDaniel 2018 page 373** Implemented the first 16 sessions in the first semester and then completed the final six sessions (eight total lessons) in the following semester. This adaptation was required to fit the primary instructional lessons within one semester of treatment (i.e., the first 16 sessions).
Unforeseen modifications	None
Planned treatment fidelity	**McDaniel 2018 page 375** To observe whether the objectives were covered for each lesson. Individual objectives were listed and rated as being met (2), partially met (1), or not met (0).
Actual treatment fidelity	**McDaniel 2018 page 375** The overall implementation fidelity was 92% across all CP lessons observed with a range of 83% to 100% across all observations
Other details	**McDaniel 2018 page 373** • During the follow-up semester, parents and guardians were invited to participate in the parent component for CP (10 sessions) • Delivered by the same two interventionists • The sessions focused on dealing with parental stress, setting expectations and boundaries for children, and doing activities together to promote bonding among family members. • Sessions took place weekly for about an hour.

Study details

Brief name	**McDaniel 2018 page 373** Control condition
Rationale/theory/Goal	Not applicable
Materials used	Not applicable
Procedures used	**McDaniel 2018 page 373** • Received only Tier 1, universal preventive supports which included school-wide expectations and school-wide reinforcement systems only • Schoolwide expectations were re-taught at the beginning of each semester and discussed daily. • All teachers utilized a token economy system as a schoolwide reinforcement system of SOAR behaviors. • Students were able to exchange their points for participation in 6-week celebrations if enough points were earned.
Provider	Not reported
Method of delivery	Not reported
Setting/location of intervention	**McDaniel 2018 page 373** School

Intensity/duration of the intervention	**McDaniel 2018 page 373** • Schoolwide expectations were re-taught at the beginning of each semester and discussed daily.
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported
Other details	Not reported

Critical appraisal - ROBINS-I: a tool for assessing risk of bias in non-randomised studies of interventions

Section	Question	Answer
Overall bias	Risk of bias judgement	Moderate

D.1.8 McQuillin, 2021

Bibliographic Reference	McQuillin, Samuel D; McDaniel, Heather L; Pilot randomized trial of brief school-based mentoring for middle school students with elevated disruptive behavior.; Annals of the New York Academy of Sciences; 2021; vol. 1483 (no. 1); 127-141

Study details

Study design	Randomised controlled trial (RCT)
Trial registration number	Not reported
Study start date	2016
Study end date	2017
Aim	To pilot a randomized trial of a youth school based mentoring program designed to support stu dents demonstrating elevated disruptive behaviour in middle school.
Country/geographical location	United States
Setting	A public middle school in the south-eastern United States
Type of school	Secondary school
UK Key stage	Key stage 3
Inclusion criteria	Students that presented within the top 10% of behaviour infractions in the school (i.e., defined by the number of office discipline referrals)

Exclusion criteria	Not reported
Method of randomisation	Students were randomly assigned using the R statistical computing program
Method of allocation concealment	Not reported
Unit of allocation	Individual
Unit of analysis	Individual
Statistical method(s) used to analyse the data	• Basic descriptive statistics on pre- and post-assessment and record completion rates provided information on the feasibility of the assessment schedule and the usability of the mentoring curriculum. • To evaluate the effect of the mentoring program, the authors included an intent-to-treat (ITT) dummy code in each model. • All models focused on student level outcomes at post-assessment, given the student randomised research design. • A standardised estimate of treatment effect size, Cohen's d was calculated for the student- and teacher-reported outcomes, as well as student grades at post-assessment. • A zero inflated Poisson regression model to analyse behavioural count data.
Attrition	• The maximum number of missing school records for any outcome at the pre-test was three records (i.e., 4%). • The maximum number of missing teacher-reported outcomes was five (i.e., 7%). • The maximum number of missing self-reported outcomes was five (i.e., 7%). • Excepting parent measures, data collection rates exceeded the a priori goal (i.e., 90%).
Study limitations (author)	• This was a a small, underpowered pilot study. Small samples are associated with overestimation of effect sizes.

	• Students for the current project were enrolled from one middle school in a South-eastern state and may not be representative of students with increased behavioural difficulty in other school settings, limiting the generalisability of these effects. • Mentors were predominately White, females, and not representative of all possible undergraduate mentors. • There was general mismatch between the mentors who were mentoring predominately Black male youth. • Coverage of session content was assessed by mentor self-report. The implementation science literature suggests that self-report measures may not correspond well with other measures of program • implementation, such as more objective observation measures, and may not be as clearly linked to program outcomes. • Parent survey completion rates were poor (i.e., 40% completion at baseline and 53% completion at post-assessment). Therefore, the authors were unable to estimate effect of the intervention on parent-reported outcomes.
Study limitations (reviewer)	Lack of information on exclusion criteria and method allocation concealment
Source of funding	This work was funded by the Society for the Study of School Psychology through the Early Career Research Award mechanism

Study arms

Brief instrumental mentoring (N = 34)

Control (N = 33)

Characteristics

Arm-level characteristics

Characteristic	Brief instrumental mentoring (N = 34)	Control (N = 33)
6th Grade Sample size	n = 9 ; % = 26.5	n = 10 ; % = 30.3
7th Grade Sample size	n = 17 ; % = 50	n = 16 ; % = 48.5
8th Grade Sample size	n = 8 ; % = 23.5	n = 7 ; % = 21.2
Male Sample size	n = 20 ; % = 58.8	n = 24 ; % = 72.7
Female Sample size	n = 14 ; % = 41.2	n = 9 ; % = 27.3
Black Sample size	n = 29 ; % = 85.3	n = 28 ; % = 84.8
White Sample size	n = 4 ; % = 11.8	n = 5 ; % = 15.2

Characteristic	Brief instrumental mentoring (N = 34)	Control (N = 33)
Latin or Hispanic Sample size	n = 1 ; % = 2.9	n = 0 ; % = 0

Outcomes

Study timepoints

- 18 week (Endpoint (intervention delivered over the course of an 18-week semester))

Outcomes

Outcome	Brief instrumental mentoring, 18 week, N = 34	Control, 18 week, N = 33
Behavioural outcomes - Externalising behaviour Measured by the Behavior Assessment System for Children (teacher-reported) Mean (SD)	72.1 (19.2)	69.2 (19.4)
Academic outcomes Measured by school record: Math Mean (SD)	74.8 (13.7)	70.7 (13.3)

Behavioural outcomes - Externalising behaviour - Polarity - Lower values are better

Academic outcomes - Polarity - Higher values are better

Study details

Brief name	Brief, instrumental mentoring. p. 129
Rationale/theory/Goal	Mentors in the program are trained in principles and practices of motivational interviewing (MI) a person-cantered approach to having conversations about behaviour change. p. 131
Materials used	Mentors use a manual that guides program activities for each session. p. 132
Procedures used	• Mentors use the process of MI to develop a positive working alliance with mentees and guide mentees toward school-related goals. • The first three sessions of the manual are structured to facilitate rapport-building activities, helping the mentor identify and understand student strengths and values, and a structured activity adapted from Homework Organisation and Planning Skills. • Following the third session, mentors and mentees review progress toward weekly goals, adjust plans of action, and learn new skills related to identified goals. • To assist in skill development, the manual includes modular, single-session interventions adapted from cognitive behavioural therapy, academic intervention and modules used to help facilitate MI conversations. p. 132
Provider	The targeted mentor population was all college undergraduates in a University honours program and/or students in the College of Arts and Sciences. p. 130
Method of delivery	One-on-one. p. 131
Setting/location of intervention	School-based. p. 131

Intensity/duration of the intervention	Approximately 10, 45-min mentoring sessions over the course of the 18-week semester. p. 129
Tailoring/adaptation	None reported
Unforeseen modifications	None reported
Planned treatment fidelity	All mentors completed a series of trainings, including two 1.5-h in-person trainings in the fall semester and one 1-h on-site training in the spring semester. Throughout the course of the mentoring relationship, mentors were also required to complete five “just-in-time” online trainings prior to specific sessions of the program. p. 132 Fidelity was monitored by the supervisors and with the assistance of a school-based social worker, and by two advanced undergraduate students in psychology (i.e., a total estimated 1.5 full-time equivalent (FTE)). At check-in, the mentor briefly met with a supervisor to check the knowledge of session content and allow time for the mentor to ask any clarifying questions. At check-out, the mentor verbally reported to the supervisor about coverage of all session content in the manual and goals that the student had set with their mentor that week. Fidelity was measured using mentor self-reported completion of the session. p. 133
Actual treatment fidelity	Across all mentors, the average number of self-reported completed sessions was 8.82, with a minimum of 3 (n = 1) and a maximum of 10 (n = 15). p. 133

Study details

Brief name	Control. p. 130

Rationale/theory/Goal	Not reported
Materials used	Not reported
Procedures used	Not reported
Provider	Not reported
Method of delivery	Not reported
Setting/location of intervention	Not reported
Intensity/duration of the intervention	Not reported
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Individual RCT

Section	Question	Answer
Overall bias	Risk of bias judgement (subjective outcomes)	Some concerns *(Some concerns around blinding and subjective outcomes)*
Overall bias	Risk of bias judgement (objective outcomes)	Not applicable

D.1.9 Powell, 2008

Bibliographic Reference	Powell, Lesley; Gilchrist, Mollie; Stapley, Jacqueline; A journey of self-discovery: An intervention involving massage, yoga and relaxation for children with emotional and behavioural difficulties attending primary schools; European Journal of Special Needs Education; 2008

Study details

Study design	Non-randomised controlled trial (NRCT)
Trial registration number	Not reported
Aim	To evaluate the SDP in terms of changes in children's self-esteem, social competencies and behaviour compared to a control group.

Country/geographical location	England, UK
Setting	4 primary schools
Type of school	Primary school
UK Key stage	Key stage 2
Inclusion criteria	Children with special educational needs, emotional, behavioural and learnign difficulties and those on the boundaries of being excluded.
Exclusion criteria	None
Method of randomisation	Not applicable
Method of allocation concealment	None
Unit of allocation	Individual
Unit of analysis	Individual
Statistical method(s) used to analyse the data	• Data analysis was performed using SPSS v14 with a significance level set at 5%. • Baseline mean SDQ and child behaviour profile scores were compared using t-tests for intervention and control groups. • Change scores from baseline to 7-month follow-up were compared between the Intervention and Control Groups using univariate analysis of covariance, with age as a covariate.

	• SDP responses were compared using Fisher's Exact test.
Attrition	Intervention: 10/63 15.9% withdrew by follow up due to 1 pupil leaving the school and 9 not returning the follow up questionnaire Control: 9/63 14.3 % withdrew by follow up due to 7 pupils leaving the school and 2 not returning the follow up questionnaire
Study limitations (author)	The improvements in self-control, attention/concentration skills in the control condition may reflect the additional support from external agencies.
Study limitations (reviewer)	None to add
Source of funding	Not reported

Study arms

Intervention (N = 53)

Control (N = 54)

Characteristics

Arm-level characteristics

Characteristic	Intervention (N = 53)	Control (N = 54)
Age Mean (SD)	9.3 (0.7)	8.7 (0.6)
Male Sample size	n = 30 ; % = 57	n = 29 ; % = 54
Female Imputed by reviewer Sample size	n = 23 ; % = 43	n = 25 ; % = 46
White European Sample size	n = 49 ; % = 93	n = 52 ; % = 96
Receiving support Internal or external during school hours Sample size	n = 15 ; % = 28	n = 13 ; % = 24

Outcomes

Study timepoints

- Baseline
- 7 month

Behavioural outcomes

Outcome	Intervention, Baseline, N = 53	Intervention, 7 month, N = 54	Control, Baseline, N = 53	Control, 7 month, N = 54
SDQ (emotional symptoms, conduct problems, hyperactivity, peer problems) total Range 0-40 Mean (SD)	13.29 (7.1)	10.87 (7)	12.17 (4.6)	11.63 (5.9)

SDQ (emotional symptoms, conduct problems, hyperactivity, peer problems) total - Polarity - Lower values are better

Social and emotional skills, attitudes and knowledge

Outcome	Intervention, Baseline, N = 53	Intervention, 7 month, N = 54	Control, Baseline, N = 53	Control, 7 month, N = 54
Self-confidence Child profile scores (range 1-7) Mean (SD)	3.08 (1.1)	3.96 (1.2)	3.41 (1.3)	3.7 (1.3)

Outcome	Intervention, Baseline, N = 53	Intervention, 7 month, N = 54	Control, Baseline, N = 53	Control, 7 month, N = 54
Communication with peers Child profile scores (range 1-7) Mean (SD)	3.58 (1.2)	4.38 (1.4)	4.02 (1.4)	4.24 (1.3)
Self-control Child profile scores (range 1-7) Mean (SD)	4.75 (1.6)	4.58 (1.5)	4.2 (1.5)	4.42 (1.5)
Concentration/Attention skills Child profile scores (range 1-7) Mean (SD)	4.04 (1.5)	4.04 (1.6)	3.39 (1.3)	3.65 (1.2)

Self-confidence - Polarity - Higher values are better

Communication with peers - Polarity - Higher values are better

Self-control - Polarity - Higher values are better

Concentration/Attention skills - Polarity - Higher values are better

Emotional distress

Outcome

Not reported

Academic attainment and progression

Outcome

Not reported

School exclusions

Outcome

Not reported

School attendance

Outcome

Not reported

Unintended consequences

Outcome

Not reported

Quality of life

Outcome

Not reported

Study details

Brief name	**Powell 2008 Page 406** The Self-Discovery Programme
Rationale/theory/Goal	**Powell 2008 Page 404** • Developed for all children with behavioural and emotional difficulties and children at risk of exclusion in education. • Takes children on a journey of discovery about the self, commencing with increasing awareness of their own body, thoughts, emotion and behaviours. • Provides children with a range of practical skills and techniques that may help to enhance emotional well-being and increase confidence in their own ability to self-regulate their emotions and behaviours.
Materials used	None reported
Procedures used	**Powell 2008 Page 405-406** • The sessions were designed to facilitate children's self-discovery . • The primary themes of the SDP included sensory awareness, touch therapy (e.g. peer massage), yoga, breath work, communication and relaxation. • A range of topics were covered such as music, colour and food, the link between mind and body, breathing, positive thinking and choices. • At the start of each session, the tutor welcomed the children to the session and acknowledged each child individually by shaking their hand • The content of the previous session was summarised and the plan for the current session presented. • During each session, children were led through a series of practical and discussion-based activities.

	• Each session ended with a summary, praise for participation in the SDP, a relaxation exercise and a handshake before leaving the SDP. • Over the course of the SDP, children learned self hand massage and peer massage. • In addition, sensory exploration was used through music, colour and food.
Provider	**Powell 2008 page 406** • Three holistic therapists
Method of delivery	**Powell 2008 page 405** • Group, face to face
Setting/location of intervention	**Powell 2008 page 405** • A room provided by the school
Intensity/duration of the intervention	**Powell 2008 page 406** • 12 weekly sessions lasting 45 minutes
Tailoring/adaptation	None
Unforeseen modifications	None

Planned treatment fidelity	None reported
Actual treatment fidelity	None reported
Other details	**Powell 2008 page 405** • Continued to receive any additional support provided

Study details

Brief name	**Powell 2008 page 405** Control group
Rationale/theory/Goal	Not applicable
Materials used	Not applicable
Procedures used	**Powell 2008 page 405** • The control group did not receive SDP but continued receiving existing support provided
Provider	Not applicable

Method of delivery	Not applicable
Setting/location of intervention	Not applicable
Intensity/duration of the intervention	Not applicable
Tailoring/adaptation	Not applicable
Unforeseen modifications	Not applicable
Planned treatment fidelity	Not applicable
Actual treatment fidelity	Not applicable
Other details	Not applicable

Critical appraisal - ROBINS-I: a tool for assessing risk of bias in non-randomised studies of interventions

Section	Question	Answer
Overall bias	Risk of bias judgement	Moderate

D.1.10 Ratcliffe, 2014

Bibliographic Reference	Ratcliffe, B.; Wong, M.; Dossetor, D.; Hayes, S.; Teaching social-emotional skills to school-aged children with Autism Spectrum Disorder: A treatment versus control trial in 41 mainstream schools; Research in Autism Spectrum Disorders; 2014; vol. 8 (no. 12); 1722-1733

Study details

Study design	Non-randomised controlled trial (NRCT)
Trial registration number	Not reported
Aim	To evaluate the effectiveness of delivering EBSST to students, their parents and teachers by school counsellors in schools.
Country/geographical location	Australia
Setting	Mainstream metropolitan and regional schools
Type of school	Primary school
UK Key stage	Key stage 2

Inclusion criteria	• a confirmed or suspected diagnosis of Autistic Disorder, Asperger's Disorder or Pervasive Developmental Disorder, Not Otherwise Specified (PDDNOS according to DSM-IV • no known intellectual disability
Exclusion criteria	None
Method of randomisation	Not applicable
Method of allocation concealment	Not applicable
Unit of allocation	Individual
Unit of analysis	Individual
Statistical method(s) used to analyse the data	Independent samples t-tests were conducted to compare the mean change in scores from pre-treatment to post-treatment for the treatment versus the control group on the emotional competence, social skills and mental health outcome measures, based on teacher and parent report.
Attrition	High leveles of attrition in terms of number reported at post-intervention assessment
Study limitations (author)	• Study did not use ranmdmisation to allocate to groups • It was not possible to check treatment fidelity • Outcomes may be subject to bias as teachers and parents were involved in intervention
Study limitations (reviewer)	None extra

Source of funding	Authors report that no specific grant from any funding agency in the public, commercial, or not-for-profit sectors was received

Study arms

Emotion-based social skills training (N = 111)

Control (N = 106)

Characteristics

Study-level characteristics

Characteristic	**Study (N = 217)**
Age (years) Mean (SD)	9.4 (1.34)
Male Sample size	n = 195 ; % = 89.9
Female Sample size	n = 22 ; % = 10.1

Characteristic	Study (N = 217)
SEND Sample size	n = 217 ; % = 100

Outcomes

Study timepoints

- Baseline
- 15 week

Behavioural outcomes

Outcome	Emotion-based social skills training, Baseline, N = 97	Emotion-based social skills training, 15 week, N = 56	Control, Baseline, N = 107	Control, 15 week, N = 60
SDQ (emotional symptoms, conduct problems, hyperactivity, peer problems) total Strengths and Difficulties Questionnaire - Teacher Mean (SD)	16.35 (6.89)	13.5 (7.34)	17.68 (7)	15.47 (6.27)

SDQ (emotional symptoms, conduct problems, hyperactivity, peer problems) total - Polarity - Lower values are better

Social and emotional skills, knowledge and attitudes

Outcome	Emotion-based social skills training, Baseline, N = 98	Emotion-based social skills training, 15 week, N = 63	Control, Baseline, N = 103	Control, 15 week, N = 62
Social skills SSIS-T Mean (SD)	85.45 (11.99)	89.14 (12.9)	85.08 (13.07)	86.37 (9.94)

Social skills - Polarity - Higher values are better

Social and emotional skills, knowledge and attitudes

Outcome	Emotion-based social skills training, Baseline, N = 99	Emotion-based social skills training, 15 week, N = 62	Control, Baseline, N = 107	Control, 15 week, N = 66
Emotional competence EDQ Mean (SD)	109.45 (19.22)	123.77 (18.75)	114.1 (17.36)	108.2 (22.84)

Emotional competence - Polarity - Higher values are better

Study details

Brief name	Emotion-Based Social Skills Training (EBSST)

Rationale/theory/Goal	EBSST draws on theories of emotional development and emotional intelligence to teach children with ASD how to understand their own and other's emotions, emotional problem solving and emotional regulation skills. (page 1723)
Materials used	Manualised intervention and each session followed a similar structure with visual supports including a visual schedule, rule chart and reward chart. (page 1726)
Procedures used	Small groups (page 1726)
Provider	School counsellors (page 1726)
Method of delivery	Face to face (page 1726) All student, teacher and parent sessions were facilitated by the School Counsellor, with assistance from a member of school staff, most typically a teacher or teacher's aide. (page 1927)
Setting/location of intervention	Separate room at school with access to a video and whiteboard (page 1726)
Intensity/duration of the intervention	Sixteen sessions in three modules over three school terms, including one follow-up booster session at 6-months post-treatment. Weekly 90 min sessions for five consecutive weeks in each module weeks. Teachers and parents received a session prior to and following each module, and a booster session at 6-month follow-up. (page 1726)
Tailoring/adaptation	Adapted from the orginal (clinical settng) to be more appropriate to the school setting and scheduling of sessions to fit in with the school terms. (page 1726)
Unforeseen modifications	None
Planned treatment fidelity	None
Actual treatment fidelity	None

Other details	None

Study details

Brief name	Control group
Rationale/theory/Goal	No details provided
Materials used	No details provided
Procedures used	No details provided
Provider	No details provided
Method of delivery	No details provided
Setting/location of intervention	No details provided
Intensity/duration of the intervention	No details provided
Tailoring/adaptation	No details provided

Unforeseen modifications	No details provided
Planned treatment fidelity	No details provided
Actual treatment fidelity	No details provided

Critical appraisal - ROBINS-I: a tool for assessing risk of bias in non-randomised studies of interventions

Section	Question	Answer
Overall bias	Risk of bias judgement	Moderate

D.1.11 Ratcliffe, 2019

Bibliographic Reference	Ratcliffe, B.; Wong, M.; Dossetor, D.; Hayes, S.; Improving Emotional Competence in Children with Autism Spectrum Disorder and Mild Intellectual Disability in Schools: A Preliminary Treatment Versus Waitlist Study; Behaviour Change; 2019

Study details

Study design	Non-randomised controlled trial (NRCT)
Trial registration number	Not applicable
Aim	To evaluate the effectiveness of delivering EBSST for ASD + MID to children, their parents and teachers by school counsellors in schools
Country/geographical location	Australia
Setting	Mainstream metropolitan and regional schools
Type of school	Primary school
Inclusion criteria	• diagnosis of any of the three ASD subtypes (DSM-IV): autistic disorder, Asperger's disorder, or pervasive developmental disorder not otherwise specified (PDDNOS and • mild Intellectual Disability, defined as an IQ of 50–55 to 70 and associated deficits in adaptive behaviour
Exclusion criteria	Not reported
Method of randomisation	Not applicable
Method of allocation concealment	Not applicable
Unit of allocation	School

Unit of analysis	Individual
Statistical method(s) used to analyse the data	independent t tests were conducted to detect any difference between groups in terms of age, or any of the teacher or parent versions of any dependent measure.
Attrition	Children participated in EBSST during their regular school hours. The return rate therefore reflects teachers and parents returning questionnaires, rather than a loss of data due to children not completing the program.
Study limitations (author)	• child, parent, teacher and school counsellor characteristics could have influenced the study. • parents and teachers participated both as intervention agents and raters of children's social-emotional functioning so may be subjective • School counsellors who delivered EBSST were self-selected,
Study limitations (reviewer)	None extra
Source of funding	None reported

Study arms

EBSST (N = 43)

Waiting list (N = 32)

Characteristics

Study-level characteristics

Characteristic	Study (N = 85)
Age (years) Mean (SD)	9.3 (1.43)
Male Sample size	n = 43 ; % = 79.6
Female Sample size	n = 32 ; % = 97
SEND Sample size	n = 85 ; % = 100

Outcomes

Study timepoints

- Baseline
- 9 month

Behavioural outcomes

Outcome	EBSST, Baseline, N = 36	EBSST, 9 month, N = 34	Waiting list, Baseline, N = 28	Waiting list, 9 month, N = 23
Mental health difficulties Developmental Behaviour Checklist - Teacher Mean (SD)	39.11 (24.98)	37.85 (27.33)	59.5 (25.78)	49.35 (28.77)

Mental health difficulties - Polarity - Lower values are better

Social and emotional skills, knowledge and attitudes

Outcome	EBSST, Baseline, N = 36	EBSST, 9 month, N = 34	Waiting list, Baseline, N = 27	Waiting list, 9 month, N = 21
SSIS Social Skills Improvement Scale Mean (SD)	85.11 (13.06)	88.71 (12.27)	80.26 (14.5)	85.1 (12.93)

Social and emotional skills, knowledge and attitudes

Outcome	EBSST, Baseline, N = 36	EBSST, 9 month, N = 34	Waiting list, Baseline, N = 28	Waiting list, 9 month, N = 23
Emotional competence Emotional Development Questionnaire - Teacher Mean (SD)	113.9 (26.33)	129.1 (27.06)	111 (24.34)	110.7 (24.18)

Emotional competence - Polarity - Higher values are better

Study details

Brief name	EBSST
Rationale/theory/Goal	EBSST aims to improve mental health and wellbeing in school-aged children with ASD (page 2) and is based on psychoeducation and cognitive behavoir therapy (page 7)
Materials used	Manual (page 5)
Procedures used	EBSST is divided into three 5-week modules, teaching skills in understanding own and others' emotions (module 1), emotional problem solving and theory of mind (module 2), and emotion regulation skills (module 3), following a developmental theoretical framework.(page 5) All sessions were facilitated by the school counsellor, with assistance from a member of school staff, most typically a teacher or teacher's aide.(page 8)

Provider	Schol counsellors received a complete EBSST for ASD + MID kit and completed two days of skill-based training (page 7)
Method of delivery	Group face to face (page 8)
Setting/location of intervention	School quiet room, away from the regular classroom, with access to a video and whiteboard. (page 8)
Intensity/duration of the intervention	The 16-session treatment was divided into three modules over three school terms. Within each of the three modules, children received weekly 90-minute sessions for five consecutive weeks in groups of between 3 to 8 children. Teachers and parents received a session prior to and following each module. (page 8)
Tailoring/adaptation	• Module 1 focuses on just the four primary emotions — happy, sad, worried, and angry. • Module 2 taught a developmentally appropriate visual perspective-taking skill. A simplified version of emotional problem solving was retained • Module 3 taught children to select from several strategies to help change their not so good feelings to good feelings by selecting from one of six (reduced from eight in the original program) strategies in the 'feelings control kit'.
Unforeseen modifications	None reported
Planned treatment fidelity	Counsellor self-rating of their treatment implementation fidelity via rating adherence to the treatment manual on a 7-point Likert-type scale, ranging from not at all closely to very closely.
Actual treatment fidelity	All school counsellors rated their adherence to the treatment manual as either closely or very closely.

Study details

Brief name	Waiting list
Rationale/theory/Goal	Not applicable
Materials used	Not applicable
Procedures used	Not applicable
Provider	Not applicable
Method of delivery	Not applicable
Setting/location of intervention	School (page 8)
Intensity/duration of the intervention	Not applicable
Tailoring/adaptation	Not applicable
Unforeseen modifications	Not applicable
Planned treatment fidelity	Not applicable
Actual treatment fidelity	Not applicable

Critical appraisal - ROBINS-I: a tool for assessing risk of bias in non-randomised studies of interventions

Section	Question	Answer
Overall bias	Risk of bias judgement	Moderate

D.1.12 Sanchez-Sansegundo, 2020

Bibliographic Reference	Sanchez-Sansegundo, M.; Ferrer-Cascales, R.; Albaladejo-Blazquez, N.; Alarco-Rosales, R.; Bowes, N.; Ruiz-Robledillo, N.; Effectiveness of the reasoning and rehabilitation v2 programme for improving personal and social skills in spanish adolescent students; International Journal of Environmental Research and Public Health; 2020; vol. 17 (no. 9); 3040

Study details

Study design	Cluster randomised controlled trial
Trial registration number	Not reported
Study start date	Jan-2016

Study end date	Mar-2016
Aim	To assess the effectiveness of the R&R2 programme for improving personal and emotional skills in adolescent students attending basic professional training (FPB) and diversification programme (DP) (alternative education provision).
Country/geographical location	Spain
Setting	High schools offering alternative educational provision for students in Alicante (Spain)
Type of school	Secondary school
UK Key stage	Key stage 3 Key stage 4 Post-16
Inclusion criteria	1. Pupils part of an alternative educational programme (FPB or DP) 2. Regular attendance in the classroom (at least 80% in the past 3 months) 3. Being able to read and complete the questionnaires on their own
Exclusion criteria	• Declined to participate • "Other reasons" (No further detail was reported)
Method of randomisation	Students were randomly assigned to two conditions using a cluster sampling design in two stages: schools were selected by probability to size sampling and random selection of classrooms with students 13 to 17 years old attending to alternative school programmes.

Method of allocation concealment	Not reported
Unit of allocation	Cluster (classroom)
Unit of analysis	Individual
Statistical method(s) used to analyse the data	• t-test comparison between the experimental group and control group were employed to analyse possible differences in baseline between groups. • MANCOVA tests of repeated measures of 'time' with 'group' as between-subject factor were performed to analyse the effectiveness of the intervention at improving personal and social skills. • For significant results, partial eta-squared was reported as a measure of the effect size. • Descriptive values were expressed as mean and standard deviation.
Attrition	Reasoning and Rehabilitation V2: 36/68 = 47.1 % attrition Control: 33/74 = 55.4% attrition
Study limitations (author)	• The current study was conducted in a single city in Spain, and researchers and clinicians must therefore use caution when generalizing the findings to other areas of Spain or Europe. • Outcome measures were gathered using self-reported data and it is possible that some adolescents may have underestimated or exaggerated their responses.
Study limitations (reviewer)	• Lack of information on method of allocation concealment • Lack of detail on exclusion criteria
Source of funding	This study was funded by the Office of the Vice President of Research and Knowledge Transfer of the University of Alicante. Instituto Ciencias de la Educación (ICE). Programa REDES (GRE-16-32). University of Alicante (Spain).

Study arms

Reasoning and Rehabilitation V2 (N = 68)

6 classrooms consisting of 68 students

Waitlist control (N = 74)

7 classrooms consisting of 74 students

Characteristics

Arm-level characteristics

Characteristic	Reasoning and Rehabilitation V2 (N = 68)	Waitlist control (N = 74)
Age (years) Mean (SD)	16.15 (0.63)	15.93 (0.6)
Male Sample size	n = 52 ; % = 76.5	n = 48 ; % = 64.9
Female Sample size	n = 16 ; % = 23.5	n = 26 ; % = 35.1
Spanish	n = 58 ; % = 85.3	n = 62 ; % = 83.8

Characteristic	Reasoning and Rehabilitation V2 (N = 68)	Waitlist control (N = 74)
Sample size		
Other Sample size	n = 10 ; % = 14.7	n = 12 ; % = 16.2
Socioeconomic status Reported as economic resources Mean (SD)	16.15 (0.63)	17.97 (15.75)

Outcomes

Study timepoints

- 6 month (Follow-up)

Outcomes

Outcome	Reasoning and Rehabilitation V2, 6 month, N = 68	Waitlist control, 6 month, N = 74
Social and emotional skills - Self-esteem Rosenberg Self-Esteem Scale (RSE) (Self-reported) Sample size	n = 36 ; % = 52.9	n = 33 ; % = 44.6

Outcome	Reasoning and Rehabilitation V2, 6 month, N = 68	Waitlist control, 6 month, N = 74
Social and emotional skills - Self-esteem Rosenberg Self-Esteem Scale (RSE) (Self-reported) Mean (SD)	28.28 (5.61)	21.75 (6.41)

Social and emotional skills - Self-esteem - Polarity - Higher values are better

Study details

Brief name	Reasoning and Rehabilitation V2 (R&R2). p. 2
Rationale/theory/Goal	A cognitive skills programme that aims to address cognitive deficits and improve social and emotional skills in juvenile and adult population. p. 2
Materials used	Not reported
Procedures used	Focused on training cognitive, attitudinal, emotional and behavioural characteristics that are associated with negative behaviours and mental health problems in youth and adult populations. The programme offers a novel approach based on a body of evidence that the development of prosocial skills are associated with positive functioning. p. 4
Provider	Implemented by qualified trainers who have received formal instruction from the programme on how to conduct the programme activities. p. 4
Method of delivery	Group-based. p. 4
Setting/location of intervention	Class-based. p. 4

Intensity/duration of the intervention	Twelve 2 h class sessions distributed across six months. p. 4
Tailoring/adaptation	None reported
Unforeseen modifications	None reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported

Study details

Brief name	Waiting list control. p. 4
Rationale/theory/Goal	Not reported
Materials used	Not reported
Procedures used	Not reported
Provider	Not reported

Method of delivery	Not reported
Setting/location of intervention	Not reported

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster RCT

Section	Question	Answer
Overall bias	Risk of bias judgement (subjective outcomes)	High *(Concerns around missing data and lack of blinding information)*
Overall bias	Risk of bias judgement (Objective outcomes)	Not applicable

D.1.13 Squires, 2012

Bibliographic Reference	Squires, G.; Caddick, K.; Using group cognitive behavioural therapy intervention in school settings with pupils who have externalizing behavioural difficulties: An unexpected result; Emotional and Behavioural Difficulties; 2012; vol. 17 (no. 1); 25-45

Study details

Study design	Randomised controlled trial (RCT)
Trial registration number	Not reported
Aim	To explore the effectiveness of a school-based, eight-session CBT intervention for 12–13-year-old children with externalizing behavioural difficulties
Country/geographical location	Not specified but probably UK
Setting	High school
Type of school	Secondary school
UK Key stage	Key stage 3
Inclusion criteria	Pupils with externalizing behaviours atrisk of school exclusion
Exclusion criteria	Pupils with a clinical diagnosis
Method of randomisation	Drawing names out of a hat
Method of allocation concealment	None

Unit of allocation	Individual
Unit of analysis	Individual
Statistical method(s) used to analyse the data	Repeated measures analysis
Attrition	10/12 children were included in the final analysis
Study limitations (author)	None reported
Study limitations (reviewer)	• Very small sample size • No description of attrition • Weak randomisation methods
Source of funding	Not reported

Study arms

Intervention (N = 6)

Control (N = 6)

Characteristics

Study-level characteristics

Characteristic	Study (N = 12)
Age (years) Range	12 to 13
Male Sample size	n = 7 ; % = 58.3
Female Sample size	n = 5 ; % = 41.7
SEND Sample size	n = 0 ; % = 0

Outcomes

Study timepoints

- Baseline
- 8 week

Behavioural outcomes

Outcome	Intervention, Baseline, N = 6	Intervention, 8 week, N = 5	Control, Baseline, N = 6	Control, 8 week, N = 5
Pupil rated Mean (SD)	59.6 (8.5)	59 (10.82)	63.4 (5.32)	66.6 (14.43)
Teacher rated Mean (SD)	61 (5.1)	55.6 (4.16)	60.6 (3.21)	56.6 (2.51)
Pupil rated Inattentive/hyperactivity Mean (SD)	65 (6.12)	59.2 (8.17)	61.2 (10.5)	68.2 (10.43)
Teacher rated Mean (SD)	71.2 (7.98)	68.2 (7.36)	81.2 (11.7)	71.4 (12.3)

BASC-2 - School problems - Polarity - Lower values are better

BASC-2 - Externalising score - Polarity - Lower values are better

Study details

Brief name	**Squires 2012 page 26** CBT intervention

Rationale/theory/Goal	**Squires 2012 page 30** Draws heavily on ideas and materials from the Penn Resiliency Program and 'think good - feel good' books
Materials used	Not reported
Procedures used	**Squires 2012 page 30** • Increasing awareness of thoughts, inner speech, feelings and how these link to behaviour • Checking out automatic thoughts and habitual ways of thinking and responding • Considering the possibility of alternative thoughts and exploring the evidence for these • Understanding the difference between facts and beliefs • Some behavioural skills training and teaching of coping strategies • Homework exercises to extend what was covered into everyday life • Group problem-solving skills
Provider	**Squires 2012 page 30** Study's second author and the school's pastoral manager
Method of delivery	**Squires 2012 page 31** Group
Setting/location of intervention	**Squires 2012 page 30** Classroom
Intensity/duration of the intervention	**Squires 2012 page 30** 8 weeks x 1 hour session

Tailoring/adaptation	None
Unforeseen modifications	None
Planned treatment fidelity	**Squires 2012 page 31** After each group session, the facilitators met to evaluate the session, carry out fidelity checks and to plan the next session
Actual treatment fidelity	Not reported
Other details	None

Study details

Brief name	**Squires 2012 page 31** Usual school support
Rationale/theory/Goal	Not applicable
Materials used	Not applicable
Procedures used	Not applicable

Provider	Not applicable
Method of delivery	Not applicable
Setting/location of intervention	Not applicable
Intensity/duration of the intervention	Not applicable
Tailoring/adaptation	Not applicable
Unforeseen modifications	Not applicable
Planned treatment fidelity	Not applicable
Actual treatment fidelity	Not applicable
Other details	Not applicable

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Individual RCT

Section	Question	Answer
Overall bias	Risk of bias judgement (subjective outcomes)	Some concerns
Overall bias	Risk of bias judgement (objective outcomes)	Not applicable

D.1.14 Stoltz, 2013

Bibliographic Reference	Stoltz, S.; van Londen, M.; Dekovi?, M.; de Castro, B. O.; Prinzie, P.; Lochman, J. E.; Effectiveness of an individual school-based intervention for children with aggressive behaviour: a randomized controlled trial; Behavioural and cognitive psychotherapy; 2013; vol. 41 (no. 5); 525-548

Study details

Study design	Cluster randomised controlled trial
Trial registration number	Not reported
Aim	To evaluate a school-based individual tailor-made intervention designed to reduce aggressive behaviour in selected children by enhancing cognitive behavioural skills.
Country/geographical location	Netherlands

Setting	48 elementary schools in two urban regions
Type of school	Primary school
UK Key stage	Key stage 2
Inclusion criteria	• A T-score on the 32-item externalizing scale Teacher Report Form (TRF) >60 indicating a (sub) clinical level of externalizing behaviour
Exclusion criteria	• Autism Spectrum Disorder
Method of randomisation	Not reported
Method of allocation concealment	Not reported
Unit of allocation	School
Unit of analysis	Individual
Statistical method(s) used to analyse the data	• ANCOVA on the post test scores using the pre test scores as covariate and conditions status (0 = control group, 1=intervention group) as a fixed factor. • Effect sizes were calculated as the standardized mean difference, with mean gain scores. • The adjusted posttest mean (posttest mean minus baseline mean) of the control group was subtracted from the adjusted posttest mean of the intervention group, and the results were divided by the pooled standard deviation. Effect sizes were coded such that positive values mean a positive outcome for the experimental group, compared to the control group. An

	effect size of .20 was considered small, .50 was considered medium, and an effect size of .80 was considered large.
Attrition	Intervention: n=3 discontinued the intervention; 191/194 (98.5%) completed the trial Control: n=4 discontinued the control condition; 73/77 (94.8%) completed the trial Reasons for discontinuing: • More comprehensive problems • Referral to treatment
Study limitations (author)	• Unit of allocation (school) did not match unit of analysis (individual) which might have increased the risk of false positive findings. • Interventions effects were based on child, parent and teacher reported data who were not blind to the condition. • The study design allowed for twice as many intervention students as control students
Study limitations (reviewer)	• All schools received the intervention and control conditions • Schools were more willing to participate in the control condition ig they were assured of receiveing 2 years of training. • Some schools used the same teachers to select children throughout the 3 years which may have introduced bias as they would have selected for both the intervention and control conditions. • Children received a small gift for their particpation, • Parents and teachers received a small monetary reimbursement for their time.
Source of funding	Not reported

Study arms

Stay Cool Kids (N = 191)

Control (N = 73)

Characteristics

Arm-level characteristics

Characteristic	**Stay Cool Kids (N = 191)**	**Control (N = 73)**
Age (years) Mean (SD)	10.1 (0.54)	10.1 (0.49)
Male n calculated by % reported Sample size	n = 138 ; % = 72	n = 51 ; % = 70
Female imputed by reviewer Sample size	n = 53 ; % = 28	n = 22 ; % = 30
Native Dutch Imputed by reviewer	n = 130 ; % = 68	n = 58 ; % = 80

Characteristic	Stay Cool Kids (N = 191)	Control (N = 73)
Sample size		
Immigrant Calculated from % reported Sample size	n = 61 ; % = 32	n = 15 ; % = 20
Primary (or less) n calculated from % reported (NB study reported % add up to over 100 in each group) Sample size	n = 19 ; % = 10	n = 4 ; % = 5
Secondary n calculated from % reported (NB study reported % add up to over 100 in each group) Sample size	n = 57 ; % = 30	n = 18 ; % = 25
Intermediate vocational n calculated from % reported (NB study reported % add up to over 100 in each group) Sample size	n = 65 ; % = 34	n = 29 ; % = 40
Higher vocational n calculated from % reported (NB study reported % add up to over 100 in each group) Sample size	n = 31 ; % = 16	n = 15 ; % = 20
University n calculated from % reported (NB study reported % add up to over 100 in each group) Sample size	n = 25 ; % = 13	n = 8 ; % = 11

Outcomes

Study timepoints

- Baseline
- 11 week (Post intervention)

Social and emotional skills, knowledge and attitudes

Outcome	Stay Cool Kids, Baseline, N = 191	Stay Cool Kids, 11 week, N = 191	Control, Baseline, N = 73	Control, 11 week, N = 73
Self-perception Sub-scale "Behaviour attitude" of the Dutch version of the Self perceived Competence scale for children Mean (SD)	2.54 (0.55)	2.87 (0.54)	2.53 (0.56)	2.59 (0.59)

Self-perception - Polarity - Higher values are better

Behavioural outcomes

Outcome	Stay Cool Kids, Baseline, N = 191	Stay Cool Kids, 11 week, N = 191	Control, Baseline, N = 73	Control, 11 week, N = 73
Reactive aggression e.g. Child strikes back after being teased. Teacher Rating of Aggression; 5 point scale (1= never to 5 =always)	3.84 (0.87)	3.4 (0.89)	3.74 (0.95)	3.57 (0.94)

Outcome	Stay Cool Kids, Baseline, N = 191	Stay Cool Kids, 11 week, N = 191	Control, Baseline, N = 73	Control, 11 week, N = 73
Mean (SD)				
Proactive aggression e.g. Child uses aggression to dominate peers. Teacher Rating of Aggression; 5 point scale (1= never to 5 =always) Mean (SD)	2.46 (0.89)	1.35 (0.54)	1.61 (0.8)	1.62 (0.84)

Reactive aggression - Polarity - Lower values are better

Proactive aggression - Polarity - Lower values are better

Emotional distress

Outcome

Not reported

Academic attainment and progression

Outcome

Not reported

School exclusions

Outcome

Not reported

School attendance

Outcome

Not reported

Unintended consequences

Outcome

Not reported

Quality of life

Outcome

Not reported

Study details

Brief name	**Stolz 2013 page 2** Stay Cool Kids
Rationale/theory/Goal	**Stolz 2013 page 2** Aims to prevent externalizing beahviour problems by targeting problems in socisl information processing.

	In this model behaviour is seen as a result of 6 mental steps: 1. encoding of cues 2. interpretation of these cues 3. clarification of goals 4. response access or construction 5. response decision 6. enacting selected responses
Materials used	**Stolz 2013 page 9** Exercises that focused on: 1. Self-perception (less negative, realistic self-perception) 2. Social cognitions (attribution of benign intent in ambiguous situations, accurate representation of other children's emotions) 3. Anger management (emotion-regulations strategies e.g. "stop-think-act") 4. Aggressive behaviour (generation of less aggressive responses to social provocations) For the intervention plan trainers chose five from nine programme components that were most appropriate for the individual child's needs as described in the trainer manual.
Procedures used	**Stolz 2013 page 9** • The trainer met with the parents and teachers before the training, during the mid-term evaluation and at the end of the training. • The training consisted of 2 phases: Phase 1

	• Trainers investigated the child's specific needs and competencies (the first sessions starts with and introduction which was the same for all children). • Trainers then chose 2 exercises that were best suited for the individual child for the second and third session. • An individual analysis of the child's competencies was made and discussed with parents and teachers resulting in an indvidual intervention plan. • Before phase 2 (session 4-8) a contract between trainer and child was signed. Phase 2 • Intervention (based on tailored plan) [not described further]
Provider	**Stolz 2013 page 10** Certified Stay Cool Kids trainer
Method of delivery	Individual, face to face
Setting/location of intervention	School (not further described0
Intensity/duration of the intervention	**Stolz 2013 page 9** 8 weekly sessions of 45mins
Tailoring/adaptation	None reported
Unforeseen modifications	None reported

Planned treatment fidelity	**Stolz 2013 page 10** • Study trainers had 2-weekly meetings to discuss training and get feedback from other trainers and supervisors. • Trainers filled in logs after every intervention session.
Actual treatment fidelity	**Stolz 2013 page 10** • 99% of training sessions were completed as intended • Trainers changed the content of the training session in 6.5% of cases when the planned training session did not work for the specific child.
Other details	None

Study details

Brief name	Control
Rationale/theory/Goal	Not reported
Materials used	Not reported
Procedures used	Not reported
Provider	Not reported

Method of delivery	Not reported
Setting/location of intervention	Not reported
Intensity/duration of the intervention	Not reported
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported
Other details	Not reported

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster RCT

Section	Question	Answer
Overall bias	Risk of bias judgement (subjective outcomes)	High *(All participants were not blind to intervention allocation. All schools received both intervention and control conditions)*
Overall bias	Risk of bias judgement (Objective outcomes)	Not applicable

D.1.15 te Brinke, 2021

Bibliographic Reference	te Brinke, Lysanne W.; Menting, Ankie T.A.; Schuiringa, Hilde D.; Dekovic, Maja; Weisz, John R.; de Castro, Bram O.; Emotion regulation training as a treatment element for externalizing problems in adolescence: A randomized controlled micro-trial; Behaviour Research and Therapy; 2021; vol. 143; 103889

Study details

Study design	Randomised controlled trial (RCT)
Trial registration number	NTR7334
Aim	To examine the effects of emotion regulation training as a treatment element for adolescents with externalising problems.

Country/geographical location	The Netherlands
Setting	Dutch high schools for regular and special education
Type of school	Secondary school
UK Key stage	Key stage 3 Key stage 4
Inclusion criteria	A subclinical or clinical level of externalising problems as reported by teachers (externalising subscale > 84th percentile, T-score > 60) and average or above average intelligence (estimated IQ score > 80).
Exclusion criteria	Participants who experienced severe Autism Spectrum symptoms as reported by their teacher (autism spectrum score > 98th percentile, Sum-score > 89) and/or if their language, auditory or visual skills were severely hindered (as evidenced by an indication of the school psychologist that the adolescent possessed insufficient Dutch language skills to understand the training and questionnaires, or had an auditory or visual disability).
Method of randomisation	Randomization took place at the individual level, by means of computer-generated random numbers
Method of allocation concealment	Not reported
Unit of allocation	Individual
Unit of analysis	Individual

Statistical method(s) used to analyse the data	• Differences between the experimental and control condition at baseline were examined with ANOVAs and Chi-square tests. • Next, between-group differences between the control condition and experimental condition, and between the Think-Act sequence and Act-Think sequence were examined with a series of Structural Equation Modelling (SEM) path analyses. • For all regression analyses, effect size estimates were computed as Cohen's d, with a two-step approach, as recommended by Feingold (2019). • Mediation analyses were performed, using the ANCOVA model to examine whether the effect of condition on externalising problems was mediated by changes in emotion regulation. • Within-person change during the Think Cool and Act Cool module was examined with Piecewise Hierarchical Linear Growth Models.
Attrition	Think Cool Act Cool emotion regulation training: 53/57 = 7.0% attrition Control: 48/51 = 5.9% attrition
Study limitations (author)	• Although participants were randomly assigned to the control or intervention condition, allocation to the sequence groups was not random. this design might have limited the power to detect approach and sequence effects, because the analyses on approach and sequence were performed with a relatively small sample size. • The sample size was slightly smaller than originally planned due to recruitment difficulties. • Multiple separate SEM models were performed, which might have inflated type I error rates. • The questionnaire that was used to measure within-person change was not validated, and mean levels on the subscales appeared to be relatively low. It is possible that the lack of within-person differences between the cognitive and behavioural approach was a consequence of a possible floor effect of the weekly measure. • The percentage of adolescents from non-Dutch ethnicity was higher in comparison to the general population and the average socio-economic status of our sample was relatively low. This may limit generalisability.
Study limitations (reviewer)	Lack of information on method of allocation concealment

Source of funding	This study was funded by The Netherlands Organization for Health Research (ZonMW) under Grant number 729300014.

Study arms

Think Cool Act Cool emotion regulation training (N = 57)

Care-as-usual (N = 51)

Characteristics

Study-level characteristics

Characteristic	**Study (N = 108)**
Mothers completing only primary education Sample size	n = NR ; % = 12.3
Fathers completing only primary education Sample size	n = NR ; % = 10
Mothers completing only lower secondary education Sample size	n = NR ; % = 55.6

Characteristic	Study (N = 108)
Fathers completing only lower secondary education Sample size	n = NR ; % = 52.5

Arm-level characteristics

Characteristic	Think Cool Act Cool emotion regulation training (N = 57)	Care-as-usual (N = 51)
Age (years) Mean (SD)	13.77 (1.09)	13.53 (1.12)
Male Sample size	n = 41 ; % = 71.9	n = 36 ; % = 70.6
Female Sample size	n = 16 ; % = 28.1	n = 15 ; % = 29.4
Non-Dutch Sample size	n = 31 ; % = 54.4	n = 34 ; % = 66.7

Outcomes

Study timepoints

- 14 week (Follow-up (classified as post-test T3 in the publication))

Outcomes

Outcome	Think Cool Act Cool emotion regulation training, 14 week, N = 57	Care-as-usual, 14 week, N = 51
Behavioural outcomes - externalising problems Measured by Youth Self Report: Externalising Scale (self-reported) Sample size	n = 53 ; % = 93	n = 48 ; % = 94.1
Behavioural outcomes - externalising problems Measured by Youth Self Report: Externalising Scale (self-reported) Standardised Mean (SD)	0.4 (0.26)	0.29 (0.22)

Behavioural outcomes - externalising problems - Polarity - Lower values are better

Study details

Brief name	Think Cool Act Cool emotion regulation training. p. 5

Rationale/theory/Goal	The content of the training is based on elements of evidence-based treatments for adolescents with externalising problems targeting emotion regulation. p. 5
Materials used	Training manual. p. 5
Procedures used	The training consists of an introduction session and two modules (cognitive “Think Cool” and behavioural “Act Cool”). Both modules incorporate three-step approach of regulating emotions; 1. Emotion awareness 2. Emotion regulation 3. Problem solving In the Think Cool module, these steps are practiced through a cognitive approach, whereas the Act cool module uses a behavioural approach. p. 5
Provider	An experienced clinician (e.g., clinical psychologist or social worker). p. 5
Method of delivery	Delivered individually. p. 5
Setting/location of intervention	At the participants’ school. p. 5
Intensity/duration of the intervention	5 individual 45-min sessions. p. 5
Tailoring/adaptation	None reported

Unforeseen modifications	None reported
Planned treatment fidelity	Before the start of the study, all participating clinicians received a two-day training course, guided by the developers of the training manual. During the intervention period, care was taken to ensure quality of delivery through ongoing consultation and supervision meetings. To measure whether the experimental modules were delivered as intended, all sessions were audiotaped. 104 randomly selected sessions (23.5% of all delivered sessions) were independently coded by four trained research assistants on two main components of treatment integrity. p. 5
Actual treatment fidelity	Treatment adherence may be considered good in both modules, with high average percentages scored as ‘totally’ or ‘mostly’ for general session content. p. 6

Study details

Brief name	Care-as-usual. p. 5
Rationale/theory/Goal	Not reported
Materials used	Not reported

Procedures used	The majority of these adolescents did not receive additional care outside of the school context. The remaining adolescents either received family-focused care, child-focused care, pharmacotherapy or were placed in foster care/detention. p. 5
Provider	Not reported
Method of delivery	Not reported
Setting/location of intervention	Not reported
Intensity/duration of the intervention	Not reported
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Individual RCT

Section	Question	Answer
Overall bias	Risk of bias judgement (subjective outcomes)	Some concerns *(Some concerns surrounding lack of blinding information and subjective outcomes)*
Overall bias	Risk of bias judgement (objective outcomes)	Not applicable

D.1.16 Walker, 2009

Bibliographic Reference	Walker, Hill M.; Seeley, John R.; Small, Jason; Severson, Herbert H.; Graham, Bethany A.; Feil, Edward G.; Serna, Loretta; Golly, Annemieke M.; Forness, Steven R.; A Randomized Controlled Trial of the First Step to Success Early Intervention: Demonstration of Program Efficacy Outcomes in a Diverse, Urban School District; Journal of Emotional and Behavioral Disorders; 2009; vol. 17 (no. 4); 197-212

Study details

Study design	Randomised controlled trial (RCT)
Trial registration number	None reported
Study start date	2005
Aim	1. To conducat a large-scale randomized controlled trial of the First Step programme to demonstrate its efficacy

	2. To determine if programme effects and outcomes in a diverse, highly urbanised school setting matched those previously seen in a less diverse, suburban and rural setting
Country/geographical location	Albuquerque, USA
Setting	34 elementary schools of the Albuquerque Public Schools (APS)
Type of school	Primary school
UK Key stage	Key stage 1 US Grades 1 to 3 Key stage 2 US Grades 1 to 3
Inclusion criteria	**School level** • A minimum of 6 classrooms per school (2 classrooms from Grade 1, 2 and 3) **Individual level** Students with externalising behaviour problems were identified through a 2 stage screening process (using Systematic Screening for Behaviour Disorders [SSBD] scale): 1. Teachers were asked to nominate and rank 5 students in their class who exhibited the highest levels of externalising behaviours (based on provided descriptions and examples)

	2. The 3 highest-ranked students at stage 1 were then rated by teachers for student adaptive and maladaptive behaviour and a checklist of 30-high intensity, low-frequency maladaptive behavioural indicators. The student rated highest was targeted for inclusion in the study. Externalising students met criteria for behaviour problems in one of two ways: • if a student had five or more critical events endorsed on the Critical Events Index (CEI) or • if a student had one or more (but fewer than 5) critical events (CEI), a score of 30 or lower on the Adaptive behaviour Index (ABI) and a score of 35 or higher on the Maladaptive Behaviour Index (MBI) (There were 260 teachers/classrooms at randomisation and 1 student per class selected)
Exclusion criteria	None reported
Method of randomisation	Not described
Method of allocation concealment	Not reported
Unit of allocation	Individual
Unit of analysis	Indivudual
Statistical method(s) used to analyse the data	Outcome measures were categorised into 3 domains: • Problem behaviour symptoms • Functional social impairment • Academic outcomes

	MANCOVA models controlling for baseline levels were conducted for each of the outcome categories to determine the multivariate effect size followed by univariate models The Benjamini-Hochberg correction for Type 1 error rate was applied to the univariate tests. Intent to treat analyses were conducted with missing values imputed using the expectation-maximisation method.
Attrition	Control group: 97/103 (94%) participated in post-intervention assessment Intervention group: 100/107 (93%) participated in post-intervention assessment 10 (5%) students dropped out after parental consent was obtained
Study limitations (author)	• Only two thirds of the study met the full SSBD Stage 2 criteria due to a) the strategy of recruiting teachers prior to screening, b) parental decline of SSBD screening and c) only 79% of the top ranked students participated. This led to a greater variability of severity of risk in the study. (Although analyses indicated that meeting full SSBD stage 2 criteria did not moderate the association between study condition and student outcomes). • It is not possible to determine what proportion of the sample would ultimately referred and determined eligible for emotionally or behaviourally disordered under federal and state eligibilty criteria for special education. • The programme does not yet meet the standard for evaluiating efficacy and effictiveness.
Study limitations (reviewer)	• Not clear whether students were selected before or after randomisation took place which may introduce bias. • Concerns around directness of the intervention as the teaching shifts to be delivered in the home setting.
Source of funding	A 4 year Behaviour Research Center grant to the senior author from the Institute of Eduaction Sciences, US Department of Education

Study arms

First step (N = 101)

Control (N = 99)

Characteristics

Arm-level characteristics

Characteristic	**First step (N = 101)**	**Control (N = 99)**
Age (years) Standardised Mean (SD)	7.2 (1)	7.1 (0.9)
Male Imputed by reviewer Sample size	n = 80 ; % = 79.2	n = 71 ; % = 71.7
Female Sample size	n = 21 ; % = 20.8	n = 28 ; % = 28.3
Spanish speaking Sample size	n = 8 ; % = 8	n = 14 ; % = 14.1

Characteristic	First step (N = 101)	Control (N = 99)
Hispanic Sample size	n = 54 ; % = 53.5	n = 60 ; % = 60.6
English language learner Sample size	n = 15 ; % = 15.2	n = 17 ; % = 17.7
Free or reduced lunch eligible Sample size	n = 66 ; % = 73.3	n = 61 ; % = 66.3
Students in 1st grade Sample size	n = 40 ; % = 39.6	n = 43 ; % = 43.4
Students in 2nd grade Sample size	n = 34 ; % = 33.7	n = 35 ; % = 35.4
Students in 3rd grade Sample size	n = 27 ; % = 26.7	n = 21 ; % = 21.1

Outcomes

Study timepoints

- Baseline
- 2 month

Social and emotional skills, knowledge and attitudes

Outcome	First step, Baseline, N = 101	First step, 2 month, N = 101	Control, Baseline, N = 99	Control, 2 month, N = 99
Teacher rated Mean (SD)	83.4 (8.7)	94.9 (14.5)	84 (9.8)	86.3 (8.7)
Parent rated Mean (SD)	89 (14.8)	97.7 (15.6)	88.8 (14.4)	91.8 (15.1)

SSRS-SS - Polarity - Higher values are better

Behavioural outcomes

Outcome	First step, Baseline, N = 101	First step, 2 month, N = 101	Control, Baseline, N = 99	Control, 2 month, N = 99
Teacher rated Mean (SD)	123.1 (10.3)	113.3 (12.6)	120.9 (11)	119.1 (10.8)
Parent rated Mean (SD)	111.9 (15.3)	103.3 (13.8)	111.1 (15.3)	109.5 (13.4)

SSRS-PB - Polarity - Lower values are better

Emotional distress

Outcome

Not reported

Academic attainment and progression

Outcome

Not reported

School exclusions

Outcome

Not reported

Unintended consequences

Outcome

Not reported

Quality of life

Outcome

Not reported

School attendance

Outcome

Not reported

Study details

Brief name	**Walker 2009 page 198** The First Step to Success Intervention
Rationale/theory/Goal	**Walker 2009 page 199** Designed to address secondary prevention goals and outcomes
Materials used	Not described
Procedures used	**Walker 2009 page 199** A manualised intervention consisting of three modular components of: • Universal screening (to identify eligible participants) • Classroom intervention • Parent training Programme details: 1. First 5 days: The behavioural coach explains and implements the classroom intervention. 2. On day 6 the teacher takes over the implementation of the programme with the support of the coach. 3. On the 10th day the programme is extended to the home settingwhere the coach trains parents with 5 weekly home visits and teaches them how to teach their child key school success skills such as communication and

	sharing, cooperation, problem solving, limit setting and friendship-making (through role-playing, cueing, prompting, and feedback). 4. The children earn daily points by exhibiting posiitve behaviour in the classroom. 5. The last 10 days are focused on mainting the child's improved behaviour.
Provider	**Walker 2009 page 199** Behavioural coach: • a school professional who works with and coordinates the roles of the target child, parents teacher and peers throughout the implementation process) • Typically a counsellor, school psychologist, behaviour specialist or social worker.
Method of delivery	**Walker 2009 page 199** Individual but in a group setting (target child was monitored in the classroom and at home)
Setting/location of intervention	**Walker 2009 page 199** Home and classroom
Intensity/duration of the intervention	**Walker 2009 page 199** 30 programme days
Tailoring/adaptation	None reported
Unforeseen modifications	None reported

Planned treatment fidelity	**Walker 2009 page 205** Expert raters collected implementation fidelity data on four occassions during hte programme: • During the initial phase with behavioural coach • At the beginning, middle and end of the teacher phase The fidelity checklist assesses (a) whether the component was implemented (yes/no) and (b) the quality of implementation using a 5-point scale with 0 = very poor, 0.25 = poor, 0.50 = okay, 0.75 = good, and 1.0 = excellent (α =0.86).
Actual treatment fidelity	**Walker 2009 page 207** Protocol adherence: • Coach phase (84%) • Teacher phase (82%) Quality of implementation (classroom component): • Coach phase (85%) • Teacher phase (80%)
Other details	None

Study details

Brief name	**Walker 2009 page 202** Control condition
Rationale/theory/Goal	Not reported
Materials used	Not reported
Procedures used	Not reported
Provider	Not reported
Method of delivery	Not reported
Setting/location of intervention	Not reported
Intensity/duration of the intervention	Not reported
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	Not reported

Actual treatment fidelity	Not reported
Other details	None reported

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Individual RCT

Section	Question	Answer
Overall bias	Risk of bias judgement (subjective outcomes)	High *(It is unclear whether students were assessed and selected before or after randomisation. No information is reported on blinding. Outcomes were measured by teachers and parents who participated in the study.)*
Overall bias	Risk of bias judgement (objective outcomes)	Not applicable

D.2 Acceptability and barriers and facilitators studies

D.2.1 Evans, 2015

Bibliographic Reference	Evans, R.; Scourfield, J.; Murphy, S.; The unintended consequences of targeting: young people's lived experiences of social and emotional learning interventions; British Educational Research Journal; 2015; vol. 41 (no. 3); 381-397

Study details

Study design	Qualitative study
Trial registration number	Not reported
Aim	To explore young people's lived experiences of participating in a targeted SEL intervention, the Student Assistance Programme
Country/geographical location	Wales, UK
Setting	Mixed-sex secondary schools
Type of school	Secondary school
UK Key stage	Key stage 3
Inclusion criteria	• Students who participated in the targeted intervention • Parental consent
Exclusion criteria	Not reported
Data collection methods	• Participant observation of all support group sessions (n = 32) was carried out in order to explore students' reaction to the programme in situ • Structured observation schedules were completed immediately following each session. • These schedules recorded: reach; duration; quality of delivery; adherence and adaptations to programme materials; student interaction and responsiveness. • Supporting ethnographic field notes documented additional observations • Followed by 60-75 min focus groups

Ethical considerations	Cardiff University's School of Social Sciences Ethics Committee provided ethical approval for this study
Statistical method(s) used to analyse the data	Thematic analysis associated with the grounded theory approach
Attrition	N/A
Study limitations	Data was based on a limited number of cases
Study theme 1	**Identification by targeting criteria** Schools used different target criteria. They described two main categories for selection criteria **1. Care** Schools are seen as offering 'sanctuary" amid the chaotic lives of students located in socio-economically deprived communities. *"I don't want to make either value judgements or gross generalities, but where this is economic deprivation, attached to that is going to be certain circumstances where children don't have settled lives. And in a number of instances the school as an education institution offers stability, and normalcy, and constancy, and a sort of regulation to their lives that is needed."* (Headteacher) **2. Discipline** The intervention was intended to offer additional support and attention to overlooked students. Effort was made to construct a positive targeting experience, with students being offered a choice to attend, and the school downplaying the targeting process in order to avoid potential stigma. This approach involved schools drawing upon SEL intervention in order to eliminate the problematic behavioural repertoires of challenging students who compromised the academic learning of the wider student population.

	"And the eight boys are renowned for being uncontrollable in a classroom setting. And that's when they're split up. And to bring them all in one room, all together, is never thought of by some members of staff in the school" (school staff member) Therefore students assigned the 'failing' subject position were those deemed undesirable within the classroom. There was no evident effort to provide a positive targeting experience. Both observation and focus group data indicated that different targeting criteria, and the educational discourses embodied in these criteria, had a differential impact on students' experiences.
Study theme 2	**Negative labelling: inspiring resistance and rejection** Identification by the targeting criteria was experienced as negative labelling by some students especially where targeting was reserved for 'naughty' students. Although not explicitly informed of the reason for being targeted, intervention participants were able to decipher the criteria because of the fact that a discrete friendship group, governed by 'naughty' behavioural norms, had been identified. *"I said 'Alright Mr Evans, you picked the naughtiest in our year'. He goes 'no I didn't'. I went 'so what other kids mess around in our year that ain't in here. What other kids do? Literally?"* (Male student) Conscious of an educational system and discipline policy built around the eradication of naughtiness, students were aware of the negative connotations of this label and interpreted their targeting as indication of the school's desire to exclude them. *"They want us out"* (Male student, focus group) *"They want us out of lessons anyway"* (Male student, focus group) There were detrimental consequences of this unarticulated but evident process of negative labelling. Primarily it served to engender resistance to the school, as illustrated by the exacerbation of anti-school attitudes and behaviours.

	"I think it just makes us think more though that the teachers hate us." (Male student, focus group) *"Yeah, for picking us to be in this group"* (Male student, focus group) In contrast, where the targeting criteria was focused on care and support, students spoke of how fortunate they were and how they finally felt visible in a place where they had often been overlooked. *"Faye said she felt lucky and special to have been chosen and it was a really good mix of people. She also felt that being with people she didn't really know made her realise that you don't know who has a problem, and in fact everyone has some problem or other. She said this made her feel better about herself and made her think that she wasn't the only one who was dealing with things."* (Field notes)
Study theme 3	**Coveted labelling: claiming intervention capital** While initially the labelling was considered as undesirable for some students, they later recognised that this labelling could be used as a way to renegotiate and strengthen their position within the broader peer group. It also means that in order to maintain this status, participants were less willing to listen to the intervention messages. *"Leighton: Seriously it just gives you a little bit of respect.* *Rhiannon: Being naughty?* *Leighton: Yeah, you're walking around the school and other people [are* *David: 'How] you doing man?'* *Leighton: And you can walk out and they're like 'BOOM' [snaps fingers]."* (Focus groups) The desirability of the label was also manifest in debates over who had the right to claim intervention membership, and which students could not justify referral. *"Jayden: That's what I really want to know. Why Gareth?* *Rhys: Is it really though?* *Jayden: He's never got in trouble."* (Focus group)

Study theme 4	**Peer group composition** Application of different targeting criteria in each school ensured that the group composition within the intervention also differed. • identification and consultation of students with various social and emotional problems meant that a range of students were referred. The group comprised weakly bonded and even unfamiliar peers largely owing to the peripheral social position of many students. • targeting of 'naughty' students ensured identification of a pre-existing peer group that existed in a long yet tumultuous friendship that was closely bonded through endorsement of such behaviours • a mixed composition: closely bonded anti-school students and marginalised, socially withdrawn peers These complex configurations created highly politicised and conflicted group dynamics, which could potentially lead to adverse outcomes for all intervention participants (no supporting statements)
Study theme 5	**Seeking safety: privileging the familiar over the strange** The presence of exisiting friendship groups in the intervention group ensured that maintainting these relationships was more important that the intervention and students used them to protect themselves from the alien context of the intervention. They would also retreat within these friendship groups to defend them from the 'uncool' socially isolated peers who had also been targeted. *"Andrea asked that we tell our partner about a time when we were happy. I heard Nathan tell his partner about an online gaming community he had recently joined. His partner rolled her eyes and started to chat to a friend who sat next to her. Increasingly frustrated by her lack of interest or knowledge he became aggressive. Turning his chair he physically removed himself from the pairing. Joyce, the other facilitator, said she didn't understand what he was going on about either, and he needed to explain himself better if people were going to listen."* (Field notes)

Study theme 6	**Deviancy amplification: re-negotiating friendship hierarchies** The presence of entrenched friendship groups within the intervention had an impact on its members as the internal dynamics of the group were renegotiated, with this process frequently manifesting in deviancy amplification. the presence of a dominant personality can have a significant influence on friends who increasing seek favour from the dominant peers. *"As soon as they came through the door Neil and Leighton could not wait for everyone to know what they had done. They tried to appear very relaxed, with one swinging on the chair and the other leaning against the table, but both spoke very loudly about the 'crazy shit' they had been up to. Eventually, on mentioning they had smoked nine joints a day, the others took an interest. Talking over each other, they were quick to tell that they had* *been so stoned they had walked four miles to Tesco for munchies but it was shut and Leighton fell asleep on a bench outside. Neil called for a taxi, but when it arrived Leighton would not wake up so it drove off and they had to walk all the way home again via McDonalds."* (Field notes) In contrast the school that targeted students on the basis of individual needs has more diverse groups. None of these individuals were bound by closely bonded friendships or entrenched behavioural norms. Deviancy amplification was not a feature of this group. Rather students behaved differently from how they habitually acted within the broader context of their lives. *"Faye said that some friends she had argued with had been really horrible that morning and had asked her what she was wearing. She had told them that she was wearing the same as* *always and they said she looked awful. Once this had finished and nothing else seemed like it was going to emerge Emma asked us to excuse her while she went to get some paper. When she left Gemma turned to Faye and told her to stand up to the girls in order to make them stop. She said 'the next time they say that you should tell them you're wearing clothes and then walk off'. There were some furious nods and 'yeahs' around the group"* (Field notes)

Study arms

Intervention (N = 41)

Characteristics

Study-level characteristics

Characteristic	**Study (N = 41)**
Age Range	12 to 14
Male Sample size	n = 21 ; % = 50
Female Sample size	n = 21 ; % = 50
White Sample size	n = 41 ; % = 100

Critical appraisal - CASP qualitative checklist

Section	Question	Answer
Overall risk of bias	Overall risk of bias	Low

D.2.2 McGeechan, 2019

Bibliographic Reference	McGeechan, G.J.; Richardson, C.; Wilson, L.; Allan, K.; Newbury-Birch, D.; Qualitative exploration of a targeted school-based mindfulness course in England; Child and Adolescent Mental Health; 2019; vol. 24 (no. 2); 154-160

Study details

Study design	Qualitative study
Trial registration number	Not reported
Study start date	Sep-2014
Study end date	Apr-2016
Aim	The aim of this study was to qualitatively explore young people's experience of learning mindfulness techniques in school, and to gain feedback on the mindfulness course from teaching staff who delivered the course to young people.

Country/geographical location	England, UK
Setting	Three secondary schools
Type of school	Secondary school
UK Key stage	Key stage 3
Inclusion criteria	School staff selected a group of young people from within their school, who were having issues with behaviour and low academic achievement, whom they felt would most benefit from such an intervention.
Exclusion criteria	None
Data collection methods	**Semi-structured interviews** (16 participants) • Participants were asked a series of questions designed to gain feedback on what they thought about learning mindfulness techniques in the school setting. • These included questions around why young people had signed up, what techniques they had been learning and whether or not they felt the programme had had any impact on either their school or home life. • Interviews took place in school during normal school hours. **Focus groups** • Teaching staff were asked to discuss what they thought about delivering a mindfulness course in a school setting. • Questions focussed on how they recruited young people, what they felt the benefits were for young people, whether or not they felt supported by other staff to deliver the course, and how mindfulness courses could be successfully implemented in schools in the future. • The focus group took place in a community centre where teaching staff were attending a regular mindfulness practice event.
Ethical considerations	Ethical approval for this study was granted by the Teesside University School of Health and Social Care Research Ethics Committee (057/15 and 150/15) and by the research governance group within the local authority.

Statistical method(s) used to analyse the data	• Thematic analysis using a phenomenological approach to qualitative analysis
Attrition	Only 16/38 took part in the interviews
Study limitations	• Interviews took place during school time and therefore the researchers were limited in how long they could speak to the participants. • Interviews could not take place before a 6 month follow up survey had taken place which may have affected young people's recall of the intervention • Initial coding was carried out by one researcher • As only 16/38 participants took part in the interviews it is possible that only those who had a positive experience of the programme were willing to share their views.
Study theme 1	**Enrolment and continued engagement in mindful practice** Although participants demonstrated a lack of understanding of what mindfulness entailed they appeared willing to try it. *"Erm when she said it I had not a clue what it was [mindfulness],* *it was only the day when Samantha came over an' we* *like met her for the first time" (*Pupil) There was some hesitation from pupils at the start but most started to really enjoy mindfulness once the course began or they were a few weeks in. *"It's gonna be fun, and then when I got there it was fun and* *some people kept saying like when I was walking home kept* *saying 'it was boring, I didn't really like it' but then after* *that at the other lessons they were like 'oh I can't wait for it'"* (Pupil)

	Many young people however, felt that they had no choice but to take part. This means that if they felt they could say 'no' then fewer would have participated.As schools selected young people whom they felt would benefit most from participation this raises concerns around the applicability of mindfulness training in a general school population. *"Erm, we weren't asked, it was just kind of, we didn't really have a choice to be fair" (*Pupil*)* The programme lasted for 10 weeks.At the time of the interviews it had been 7 months since the last mindfulness session but many had continued to practice mindfulness at home. *"Sometimes I do [mindfulness at home, like when I am like mad or, like in a mood I do like 7–11 or the hand breathing and that really helps me [calm down]."*
Study theme 2	**Stress reduction and improved coping skills** Participants indicated that mindfulness had helped them to relax and taught them how to cope with stressful situations. They said the were more focused in class and becuase of this they felt they were less likely to receive sanctions in class for their behaviour. Some participants talked about the positive impact on their behaviour at home, and how they walk away from stressful situations rather than shouting or lashing out at family members. *"I would sort of like argue back, or retaliate. . . Like obviously not retaliate with hitting, but shouting. [Now] if my brothers or sisters are frustrating me, or I have had an argument with my mum or dad or something like that, I'll just go upstairs and like listen to the rain out of my window"* (Pupil) The coping skills developed as part of the course gave them the tools they need to cope with everyday life not only in school but also at home. Despite only lasting for 10 weeks, young people had continued to benefit from mindful practice for many months after finishing the programme.

Study theme 3	**Discussing participation with those not part of the group** Pupils spoke about the varying degrees to which they had discussed their participation in the programme with those who did not participate (peers or parents). Although it is a requirement that a school-based programme to have parental consent, not all pupils felt that their parents knew they had taken part. Some pupils discussed that their parents encouraged them to take part while others felt they had not discussed participation with them. "*Erm they thought it was something like useful for the future, they thought it was just like great and to do it"* (Pupil) *"Erm I don't even know if they know about it. [I] 'If your parents did know you were doing it, what do you think they would think about it?' [P] Probablie's [sic] like it was good and that cause then if I ever get angry at them they know that I can calm down."* (Pupil) Most pupils felt that their participation in the mindfulness programme was not widely known within the school. They said that it was not discussed among their peers as they felt others would not care whether they were doing this or not. Others felt comfortable talking with their peers about their participation but it was apparent that other pupils did not fully understand what the programme was. *"They think it was like some like, like something to, like saying I was lucky managing to get out of lessons. . . They were like [jealous] but they had no clue what it was about so they thought I was like getting activities. . . like playing games."* (Pupil)
Study theme 4	**Implementation of mindfulness in schools**

	Teachers said that the approach they had taken to trial the programme was to approach more vulnerable young people, those whom they felt would benefit most from taking part. *"I identified three students that I worked with in a counselling way and I thought they would really benefit from this and asked them how they felt about doing it"* (Teacher) The mindfulness course was a structured programme with set lessons to be delivered each week but some teachers discussed altering the slides to make them more relevant to their groups. They also felt that some of the slides were outdated or not always age appropriate. Some teachers found it difficult to amend the slides or had to rely on their school's IT support. *"I had to go back (School I.T.) several times because either something hadn't worked or had been omitted or there was a video that I was missing or and I just, and I got to the point where I just thought I can't keep doing this, I feel embarrassed"* (Teacher) Some teachers felt that they could amend the programme to suit individual needs including delivering it on a one-to-one basis rather than group format. *"Eh I've done one not so much a group but we had two together and I've also used it in a one-to-one with some students. I think when you do it one-to-one then you can get through it a lot quicker "* (Teacher) *"Yeah, works doesn't it, it works with a one-to-one I've done it."* (Teacher) Teachers were of the opinion that mindfulness has the potential to be beneficial to their pupils as well as themselves but noted that it was not for everyone.

	"Some of them are coming in and saying that 'I used it this week, I did [mindfulness] you know cause I got really annoyed at home, my brother was going to, you know, and I did it'. . . Others you might pass in the corridor and say 'how are you know; have you been doing?' 'Eh, what? Oh no don't bother with that. Or 'I've forgotten that'" (Teacher) While participants felt that there was a positive impact of the mindfulness course which can have a real, lasting impact on the lives of young people it may not be relevant for everyone, and schools may initially target it at individuals whom they feel would most benefit from taking part.
Study theme 5	**Maintaining the mindfulness course in the long term** Participant's discussed that the financial cost of the mindfulness course in the long-term was a significant barrier to maintaining the programme. Teachers noted that schools were generally supportive of trialling the mindfulness programme but once the school's had to pay to deliver the course there was a change in attitude in management and alternative, cheaper programmes were sought. *"Okay let's do it and I said alright this is how much it is going to cost and (whistles) doesn't want to do it anymore (laughter]"* (Teacher) *"The head was all for it, or principal I should call him. Erm and then when I went to see him, with my colleague after, with a proposal, because there were a number of staff who were interested erm to do some training in school for staff, he said there was no money left in the budget, so, sorry"* (Teacher) There was a sense that if there was sufficient evidence that a mindfulness could would be of long-term benefit to a substanstial number of pupils then the school would revisit the idea of commissioning the service. However, this relies ont the teachers gathering this evidence. *"Well this is a few months ago, but, you know and then it was, well if that's what you want come back to me with another proposal, and another plan to show me what the benefits are*

	going to be, and how many kids it's going to impact, and how many, you know, well I haven't got around to do that yet" (Teacher) Whilst teachers felt it was better for their caseload to deliver the interventions in groups it was recognised that this is logistically difficult, especially when needing to take the pupils out of class regularly. *"If you can identify whether this five people I've just started counselling would all actually benefit from mindfulness then that is good for your caseload as well because you are seeing five people at once, so*." (Teacher) *"Got to find a time when you can get them all together. So, it's not easy. . . if I am seeing a student for a number of sessions, I would vary which lesson they come out of so they don't miss the same lesson every week. You do your best to do that whereas if you are going to do a group, you've really got to try it at the same time every week, you know it's harder then, to vary it, I think. So, it becomes a bit of, a bit of a nightmare"* (Teacher)

Study arms

Mindfulness (N = 38)

Characteristics

Study-level characteristics

Characteristic	Study (N = 13)
Age (years) Range	12 to 15
Male Sample size	n = 13 ; % = 81
Female Sample size	n = 3 ; % = 19

Critical appraisal - CASP qualitative checklist

Section	Question	Answer
Overall risk of bias	Overall risk of bias	Moderate

D.2.3 Tucker, 2013

Bibliographic Reference	Tucker, Stanley; Pupil Vulnerability and School Exclusion: Developing Responsive Pastoral Policies and Practices in Secondary Education in the UK; 2013; 279-291

Study details

Trial registration number	Not reported
Aim	To describe the ways in which a changing educational terrain has required schools to develop a range of pastoral strategies in support of the most vulnerable young people.
Country/geographical location	Birmingham, UK
Setting	Secondary schools
Type of school	Secondary school
UK Key stage	Key stage 3
Inclusion criteria	Young people who have been permanently or temporarily excluded.
Exclusion criteria	Not reported
Data collection methods	• Semi-structured interviews
Ethical considerations	The researchers negotiated the process of informed pupil/parental consent with each individual school and checked understanding of choice, consent and confidentiality at the start of every pupil's interview. Contributions from school managers and behaviour co-ordinators were similarly constructed and managed. All transcripts were anonymised to ensure that quotations used in the final report, or subsequent articles, could not be traced to their original source

Statistical method(s) used to analyse the data	Ethnogrpahic approach
Attrition	NA
Study limitations	• None reported by author • Limited description of analysis methods
Study theme 1	**Developing targeted pastoral policies and practices** The idea of what constitutes a ‘vulnerable pupil’ was explored and it became possible to construct definitions of vulnerability related to internal and external experiences and problems. Internal school-based vulnerability was related to behaviours deemed as 'unacceptable’, ‘untypical’ or ‘likely to escalate and become out of control’. Those who have ‘struggled to integrate’, possess ‘poor learning skills and attainment outcomes’ or are consistently the subject of high levels of behavioural referral were also included. ‘External’ vulnerability was defined as ‘arising out of family problems’, ‘brought to notice by the authorities’, ‘[product of] association with gangs and undesirable peers’ and ‘arising out of loneliness and isolation’. The influence of external pressure was largely encapsulated in discussions about ‘the Ofsted regime’ and the specific emphasis placed on data recording and need to develop proactive interventions targeted towards vulnerable young people. The definition and measurement of problematic behaviour appeared to be heavily reliant on the collection of data focusing on, the number of temporary or permanent exclusions from a class or school, recorded incidents of violence, negative behaviour records, parental complaints and social care and police reports. Lesson observations by school managers were also used to gather information on classroom

management
and the behaviour of specific young people within a class.

*"We were in my view unfairly criticised by them [Ofsted], assumptions were largely made without real reference to the social, economic and cultural aspects of this school … But
we held our hands up. Our data collection wasn't the best … We had to think about pastoral care differently. We try to provide it to all students but the reality is we have to use our limited resources to focus on the neediest … We have to work at not only who, but also what we are going to do. We have to build hard data that could be closely scrutinised. The information comes from all kinds of sources inside and outside school
… Some I confess better evidenced than others."*

It is evident that, in some instances, external pressure can provide the necessary momentum for schools to critically examine and re-evaluate the effectiveness of existing pastoral policy and practice.

"For us [the School Management Team] we knew that things weren't working because there wasn't enough support, guidance and investment from the top … Pastoral care was seen as something that was marginal and owned by a few … We gave ourselves a collective kick … and said we have to do something about ownership, importance and philosophy. We had to create something more responsive in terms of meeting need, especially for the kids experiencing the greatest problems … We wanted to stem the tide of exclusion and work out what really worked for troubled young people. Without Ofsted would we have done that? I'm not sure."

Some teaching staff, remained sceptical about its likely long-term impact. Such approaches were seen as potentially 'divisive', 'counter-productive as it might appear to reward poor behaviour with treats' and 'dangerous in terms of stereotyping some kids and their families'. It was also noted that the development of targeted provision required high levels of both initial and on-going revenue funding. An issue described by one behaviour co-ordinator as needing:

"a top–down approach to funding backed by coherent, properly costed policies. You can't have built a strategy up and develop whole staff buy-in and then cut resources when times get rough … That's happened too often in the past. You have to all believe that a strong pastoral policy will pay off in terms of pupil behaviour and as important, better learning."

Study theme 2	**Identifying and responding to need** Many young people had actually sought out a physical space where 'you could be comfortable with a teacher who really knows how to listen and care … and will do something afterwards. *"I was really desperate didn't like know what to do … I thought of school and I thought of Miss X [pastoral support worker]. Late, couldn't think straight … leave a message ...she'll get it in the morning when school starts … Know what? She was there in the entrance when I got in … Can't tell you how relived I was. We went to a room where I knew nobody would like listening in the business."*
Study theme 3	**Focused pastoral interventions** Pastoral responses are sometimes aimed at meeting the needs of specific groups of young people rather than individuals within a school. The reasons for this are complex and driven by a variety of factors such as high truancy rates, poor behaviour in the classroom, gang violence, increases in numbers of pupils in withdrawal areas/alternative provision. In such situations, the development of highly visible and group-focused responses was deemed as both necessary and desirable. For some schools, the employment of a specialist group worker has to be justified by maximising the number of pupils who might take part in an activity. *"Working together in groups for difficult kids is so important … It's about the holistic young person equipped for dealing with their own problems … bridging the academic and the social gap. A child who can say what they think or believe not aggressively or followed by kicking a chair over. Someone who can deal with their own problems and conflicts caused by others; we want them to be calm, collected and group situations allow them to develop those kind of skills."* (Behaviour co-ordinator) A significant number of young people placed a high value on the opportunities that had been provided to work in a group with other young people. Groups were seen as *'really important*

	in like getting yourself steady and talking about things that trouble you', 'making sense of stuff' and '*realising there are loads of people like me with problems'* For some young people, however, the challenge of being part of a group proved to be significant: *'I didn't want nothing to do with it to start off with but Helen [group worker] helped me loads*'. At the same time, it is important to acknowledge the difficulty faced by young people who feel coerced into joining a group: *'I hated it but they [teachers and parents] made me go; like it was anger management or being kicked out … so in the end I sat there and hardly spoke'.*

Study arms

Pastoral support (N = 60)

Characteristics

Study-level characteristics

Characteristic	**Study (N = 49)**
Age Years Range	13 to 15
Male Sample size	n = 26 ; % = 53.1

Characteristic	Study (N = 49)
Female Sample size	n = 23 ; % = 46.9

Critical appraisal - CASP qualitative checklist

Section	Question	Answer
Overall risk of bias	Overall risk of bias	Low

D.2.4 Wilding, 2016

Bibliographic Reference	Wilding, Lucy; Claridge, Simon; The Emotional Literacy Support Assistant (ELSA) Programme: Parental Perceptions of Its Impact in School and at Home; Educational Psychology in Practice; 2016; vol. 32 (no. 2); 180-196

Study details

Study design	Qualitative study
Trial registration number	Not reported

Aim	To explore parent's perceptions of the Emotional Literacy Support Assistant (ELSA) programme
Country/geographical location	Wales, UK
Setting	Primary school
Type of school	Primary school
UK Key stage	Key stage 1 Key stage 2
Inclusion criteria	• the child must have participated in at least 6 ELSA sessions
Exclusion criteria	• parents experiencing significant personal issues (e.g. family bereavement)
Data collection methods	• Semi-structured interviews • Recorded using a digial audio recorder • Parents were interviewed in a private room in the school setting
Ethical considerations	In line with the university's ethical requirements for this project, participants were informed that the anonymised data may be retained indefinitely.
Statistical method(s) used to analyse the data	• A thematic analysis was employed to provide a systematic approach for identifying themes and patterns of meaning across the dataset • seven stages of coding and analysis were followed: transcription; reading and familiarisation; complete coding; searching for themes; reviewing themes and producing a provisional thematic map; defining and naming themes; and report writing. • Interviews were transcribed verbatim
Attrition	N/A

Study limitations	• Small sample of parents • parents with negative perceptions of the programme may have been less willing to participate, especially since the interviews took place within school • it is not possible to determine the extent to which any impact, noted by parents, was specifically due to the ELSA programme, as opposed to the consequence of receiving additional attention
Study theme 1	**What is the ELSA programme?** Participants expressed uncertainty in the aims of the programme. Many participants indicated that parents do not receive sufficient information to acquire a detailed understanding of the aims. Participants were able to discuss the aims of the programme in relation to their child's individual needs but not the broader aims of the programme. *"I think that it's good for the confidence, but apart from that I don't know what else they do"* It may be useful for schools to provide parents with a general overview of the programme and its aims, as well as explaining how the programme may be useful in promoting a specific aspect of their child's social or emotional development. • Emotion regulator Many parents discussed how the programme supports to regulate their emotions
Study theme 2	**Problem solver** Many parents thought that the aims of the intervention were to support specific difficulties. *"The aims I would say are around helping children whether they've either got a learning difficulty or learning disability or children who generally are more prone to either being socially secluded, isolated, shy. Children who are going through*

	difficult times like maybe trauma, bereavement, divorce, all those things that are gonna impact on their ability to be resilient whilst in school […] so for me the aim is about helping those children with intervention and strategies to be able to overcome some of those difficulties" • Emotion regulator Many parents discussed how the programme supports to regulate their emotions. *"it's teaching her different ways of dealing with emotions and stress, anxiety, worries"* (Parent) *"they give him that support of how to deal with his upsets"* (Parent) *"it's a good initiative for young people to discuss their emotional needs"* (Parent) • Skilled for life Parents acknowledged the the lifelong aims of the programme. The development of emotional literacy skills is perceived to provide a foundation for subsequent learning and coping strategies. *"it could affect him for the rest of his life"*
Study theme 3	**The ELSA–child relationship** Almost all participants perceived the provision of a supportive ELSA–child relationship to be a fundamental aim of the programme and essential to its effectiveness. Parents and professionals, therefore, appear to be in agreement that this is a crucial aspect of the programme. *"knowing that somebody is there, if and when he needs it"* (Parent)

	“talks about his ELSA teacher […] as part of his circle of friends”. (Parent) Parents also described theELSA–child relationship as separate and distinct from relationships with teaching staff and family members. The programme is, therefore, perceived to provide a respectful relationship that enables children to express themselves, without feeling judged or criticised. *“talking to somebody outside the family”* *"somebody that doesn’t know [her son]”; thus, “no one can judge him”.*
Study theme 4	**Social and emotional development** All participants referenced social or emotional development as an area within which the programme caused a positive impact, at home and in school. *“he knows how to deal with it better”* *“he takes less time* *to come down before he can actually talk” at home* In terms of social development, Hannah noted improvements in her daughter’s *“awareness of what friendship is and what value it can maybe have”*. Amy also commented that her son has now “got friends” and, within the home context, he has started socialising with his sister: *“they’ll play battleships together or board games and even walk to the park together”.*
Study theme 5	**Transferable skills and resources** Many of the skills learned within ELSA sessions were perceived to be transferable beyond the classroom/school setting *“he’ll physically try and calm himself down, so there’s a coping strategy that he’s been told”*

	“what I have seen is her using some of these strategies and some of the games they’ve been playing” Parents noted improvements in their child’s communication skills within the home setting. *“now able to talk better to us or to me and my other little boy”*
Study theme 6	**Improved home–school communication** Parents expressed that they felt they had very little or no contact with the ELSAs *“I did ask that I be kept in touch […] but nobody’s phoned. That’s the disappointing element to it”.* Some participants’ comments suggested that an improved home–school link would provide parents with emotional support and reassurance. *“I’d like a bit more support for the parents’ side of it. I think that would make a lot of difference”*
Study theme 7	**What happens next?** Parents expresswed uncertainty regarding the criteria used to determine when children were ready to move on from the programme. *"I feel as if in some ways he’s being kind of left in the class more now because he’s sitting there […], whereas before he’s been disruptive, now he’s in a routine he’ll probably sit there quietly and just daydream."*

Study arms

ELSA (N = 7)

Critical appraisal - CASP qualitative checklist

Section	Question	Answer
Overall risk of bias	Overall risk of bias	Moderate

Appendix E: Forest plots

No forest plots are presented as a meta-analysis was not conducted.

Appendix F: GRADE and GRADE-CERQual tables

F.1 GRADE tables

F.1.1 Targeted social and emotional support in primary education

F.1.1.1 Group interventions delivered by school staff

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Group interventions delivered by school staff	Usual practice	Relative (95% CI)	Absolute		
Social and emotional skills (Humphrey 2010a) (Better indicated by higher values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	102	80	-	MD 5.12 higher (2.09 to 8.15 higher)	⊕⊕OO LOW	
Social and emotional skills (Humphrey 2010b) (Better indicated by higher values)												
1	randomised trials	very serious[2]	no serious inconsistency	no serious indirectness	serious[3]	none	114	77	-	MD 1.3 higher (1.69 lower to 4.29 higher)	⊕OOO VERY LOW	
Behavioural difficulties (Humphrey 2010a) (Better indicated by lower values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	102	80	-	MD 2.67 lower (4.54 to 0.8 lower)	⊕⊕OO LOW	
Behavioural difficulties (Humphrey 2010b) (Better indicated by lower values)												
1	randomised trials	very serious[2]	no serious inconsistency	no serious indirectness	serious[3]	none	114	77	-	MD 1.3 higher (1.69 lower to 4.29 higher)	⊕OOO VERY LOW	
Prosocial behaviour (Humphrey 2010a) (Better indicated by higher values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[3]	none	102	80	-	MD 0.09 higher (0.46 lower to 0.64 higher)	⊕OOO VERY LOW	
Prosocial behaviour (Humphrey 2010b) (Better indicated by higher values)												

1	randomised trials	very serious[2]	no serious inconsistency	no serious indirectness	serious[3]	none	114	77	-	MD 0.09 higher (0.49 lower to 0.67 higher)	⊕OOO VERY LOW	
Social Skills (Ratcliffe 2019) (Better indicated by higher values)												
1	randomised trials	very serious[2]	no serious inconsistency	no serious indirectness	serious[3]	none	34	21	-	MD 3.61 higher (3.29 lower to 10.51 higher)	⊕OOO VERY LOW	
Emotional competence (Ratcliffe 2019) (Better indicated by higher values)												
1	randomised trials	very serious[2]	no serious inconsistency	no serious indirectness	no serious imprecision	none	34	23	-	MD 18.4 higher (4.97 to 31.83 higher)	⊕⊕OO LOW	
Mental health difficulties (Ratcliffe 2019) (Better indicated by lower values)												
1	no methodology chosen					none	34	23	-	MD 11.5 lower (26.42 lower to 3.42 higher)		
Social Skills (Ratcliffe 2014) (Better indicated by higher values)												
1	randomised trials	very serious[2]	no serious inconsistency	no serious indirectness	serious[3]	none	56	60	-	MD 1.97 lower (4.46 lower to 0.52 higher)	⊕OOO VERY LOW	
Emotional competence (Ratcliffe 2014) (Better indicated by higher values)												
1	randomised trials	very serious[2]	no serious inconsistency	no serious indirectness	no serious imprecision	none	62	66	-	MD 15.57 higher (8.35 to 22.79 higher)	⊕⊕OO LOW	
Behavioural difficulties (Ratcliffe 2014) (Better indicated by lower values)												
1	randomised trials	very serious[2]	no serious inconsistency	no serious indirectness	serious[3]	none	56	60	-	MD 1.97 lower (4.46 lower to 0.52 higher)	⊕OOO VERY LOW	
Behavioural difficulties (Knowler 2013) (Better indicated by lower values)												
1	randomised trials	serious[4]	no serious inconsistency	no serious indirectness	serious[3]	none	22	23	-	MD 0.66 higher (263.36 lower to 264.68 higher)	⊕⊕OO LOW	

[1] Study appraised as being at serious risk of bias. Study design was NRCT.

[2] Study appraised as being at moderate risk of bias. Study design was NRCT.

[3] Serious concerns as 95% CI crosses line of no effect

[4] Study appraised as having some risk of bias concerns

F.1.1.2 Group interventions delivered by specialists

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Group interventions delivered by specialists	Usual practice	Relative (95% CI)	Absolute		
Self-confidence (Powell 2008) (Better indicated by higher values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	54	54	-	MD 0.26 higher (0.21 lower to 0.73 higher)	⊕OOO VERY LOW	
Communication with peers (Powell 2008) (Better indicated by higher values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	54	54	-	MD 0.14 higher (0.37 lower to 0.65 higher)	⊕OOO VERY LOW	
Self-control (Powel 2008) (Better indicated by higher values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	54	54	-	MD 0.16 higher (0.41 lower to 0.73 higher)	⊕OOO VERY LOW	
Concentration/attention skills (Powell 2008) (Better indicated by higher values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	54	54	-	MD 0.39 higher (0.14 lower to 0.92 higher)	⊕OOO VERY LOW	
Behavioural difficulties (Powel 2008) (Better indicated by lower values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	54	54	-	MD 0.76 lower (3.2 lower to 1.68 higher)	⊕OOO VERY LOW	
Behavioural difficulties (Coping Power) (McDaniel 2018) (Better indicated by lower values)												

1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	13	163	-	MD 1.77 lower (2.69 to 0.85 lower)	⊕⊕OO LOW	
Prosocial behaviour (Coping Power) (McDaniel 2018) (Better indicated by higher values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	13	13	-	MD 1 higher (0.55 to 1.45 higher)	⊕⊕OO LOW	

[1] Study appraised as being at moderate risk of bias. Study design was NRCT.

[2] Serious concerns as 95% CI crosses line of no effect

F.1.1.3 Individual interventions delivered by school staff

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Induvial interventions delivered by school staff**	**Usual practice**	**Relative (95% CI)**	**Absolute**		
Social skills (Walker 2009) (Better indicated by higher values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	101	99	-	MD 8.6 higher (5.29 to 11.91 higher)	⊕⊕OO LOW	
Problem behaviours (Walker 2009) (Better indicated by lower values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	101	99	-	MD 5.8 lower (9.05 to 2.55 lower)	⊕⊕OO LOW	
Prosocial behaviour (Check-In/Check-Out) (McDaniel 2018) (Better indicated by higher values)												
1	randomised trials	very serious[2]	no serious inconsistency	no serious indirectness	no serious imprecision	none	7	13	-	MD 0.83 higher (0.17 to 1.49 higher)	⊕⊕OO LOW	
Prosocial behaviour (Check-In/Check-Out) (McDaniel 2018) (Better indicated by higher values)												

1	randomised trials	very serious[2]	no serious inconsistency	no serious indirectness	no serious imprecision	none	7	13	-	MD 0.83 higher (0.17 to 1.49 higher)	⊕⊕OO LOW	

[1] Study appraised as having a high risk of bias

[2] Study appraised as being at moderate risk of bias. Study design was NRCT.

F.1.1.4 Individual interventions delivered by specialists

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Individual interventions delivered by specialists**	**Usual practice**	**Relative (95% CI)**	**Absolute**		
Self-perception (Stoltz 2013) (Better indicated by higher values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	191	73	-	MD 0.28 higher (0.12 to 0.44 higher)	⊕OOO VERY LOW	
Reactive agression (Stoltz 2013) (Better indicated by lower values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	191	73	-	MD 0.17 lower (0.42 lower to 0.08 higher)	⊕OOO VERY LOW	
Proactive agression (Stoltz 2013) (Better indicated by lower values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	191	73	-	MD 0.27 lower (0.48 to 0.06 lower)	⊕⊕OO LOW	

[1] Study appraised as having a high risk of bias

[2] Serious concerns as 95% CI crosses line of no effect

F.1.2 Targeted social and emotional support in secondary education

F.1.2.1 Group interventions delivered by specialists

Quality assessment	No of patients	Effect	Quality	Importance

No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Group interventions delivered by specialists	Usual practice	Relative (95% CI)	Absolute		
Interpersonal conflict resolution (Bernal-Manrique 2020) (Better indicated by higher values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	21	21	-	MD 25.45 higher (21.27 to 29.63 higher)	⊕⊕OO LOW	
Externalising problems (te Brinke 2021) (Better indicated by lower values)												
1	randomised trials	serious[2]	no serious inconsistency	no serious indirectness	no serious imprecision	none	53	51	-	MD 0.11 higher (0.02 to 0.2 higher)	⊕⊕⊕O MODERATE	
Externalising behaviours (Squires 2012) (Better indicated by lower values)												
1	randomised trials	serious[2]	no serious inconsistency	no serious indirectness	serious[3]	none	5	5	-	MD 3.2 lower (15.76 lower to 9.36 higher)	⊕⊕OO LOW	
Self-esteem (Sanchez-Sansegundo 2020) (Better indicated by higher values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	36	33	-	MD 6.53 higher (3.68 to 9.38 higher)	⊕⊕OO LOW	
Anxiety and depression (Bernal-Manrique 2021) (Better indicated by lower values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[3]	none	21	21	-	MD 4.19 lower (12.23 lower to 3.85 higher)	⊕OOO VERY LOW	

[1] Study appraised as having a high risk of bias

[2] Study appraised as having some risk of bias concerns

[3] Serious concerns as 95% CI crosses line of no effect

F.1.2.2 Individual interventions delivered by specialists

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Individual interventions delivered by specialists	Usual practice	Relative (95% CI)	Absolute		
Externalising symptoms (McQuillin 2021) (Better indicated by lower values)												
1	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	34	33	-	MD 2.9 higher (6.34 lower to 12.14 higher)	⊕⊕OO LOW	
Anxiety and depression (Cooper 2021) (Better indicated by lower values)												
1	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	151	154	-	MD 1.84 lower (4.68 lower to 1 higher)	⊕⊕OO LOW	
Academic outcomes (math scores) (McQuillin 2021) (Better indicated by higher values)												
1	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	34	33	-	MD 4.1 higher (2.37 lower to 10.57 higher)	⊕⊕OO LOW	
Behavioural difficulties (Cooper 2021) (Better indicated by lower values)												
1	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	150	154	-	MD 0.74 lower (1.98 lower to 0.5 higher)	⊕⊕OO LOW	
School exclusions (Cooper 2021) (Better indicated by lower values)												
1	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	149	152	-	MD 0.03 lower (0.16 lower to 0.1 higher)	⊕⊕OO LOW	

[1] Study appraised as having some risk of bias concerns

[2] Serious concerns as 95% CI crosses line of no effect

F.1.2.3 Individual interventions delivered by an unspecified provider

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Individual interventions delivered by an unspecified provider	Usual practice	Relative (95% CI)	Absolute		
Impulsivity (Franco 2016) (Better indicated by lower values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	13	14	-	MD 11.69 lower (19.32 to 4.06 lower)	⊕⊕OO LOW	
Aggression (Franco 2016) (Better indicated by lower values)												

1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	13	14	-	MD 2.7 lower (5.96 lower to 0.56 higher)	⊕OOO VERY LOW	

[1] Study appraised as having a high risk of bias

[2] Serious concerns as 95% CI crosses line of no effect

F.2 GRADE-CERQual tables

F.2.1 Acceptability of targeted social and emotional support in primary, secondary and further education

Table 15: Acceptability of interventions

Summary of review finding	Studies contributing to review finding	Methodological limitations	Coherence	Adequacy	Relevance	CERQual assessment of confidence in the evidence
Introducing the intervention to young people Some young people were initially hesitant to try mindfulness and generally had a lack of understanding about what was entailed. However, they were still willing to try it and found they began to enjoy it once they started. Other young people felt that they had no choice but to take part.	McGeechan 2019	**Minor concerns** 1 study with moderate risk of bias due to unclear reflexivity	Not applicable as only one study included	**Moderate concerns** Limited to data from one study with only young people as informants.	**No concerns** Study related to the views and experiences of targeted social and emotional support	**Moderate confidence** Data from a single study and unable to check for inconsistency.
Acceptability of the intervention content Teachers found that they had to alter the slides provided with the mindfulness intervention to make	McGeechan 2019	**Minor concerns**	Not applicable as only one study included	**Moderate concerns**	**No concerns** Study related to the views	**Moderate confidence**

Summary of review finding	Studies contributing to review finding	Methodological limitations	Coherence	Adequacy	Relevance	CERQual assessment of confidence in the evidence
them more relevant to their groups. They also found that the content was often outdated or not age appropriate. Making changes to the materials meant that some teachers had to rely on their IT support.		1 study with moderate risk of bias due to unclear reflexivity		Limited to data from one study with only young people as informants.	and experiences of targeted social and emotional support	Data from a single study and unable to check for inconsistency.
Acceptability of intervention delivery Pastoral support designed to meet the needs of specific groups rather than individuals was sometimes deemed to be both necessary and desirable. Young people did value the opportunities provided to work in groups with other young people. However, other young people found working in groups challenging especially when feeling coerced into joining the group.	Tucker 2013	**No concerns** 1 study with low risk of bias	Not applicable as only one study included	**Minor concerns** Limited to data from one study but with young people and teachers as informants.	**No concerns** Study related to the views and experiences of targeted social and emotional support	**Moderate confidence** Data from a single study and unable to check for inconsistency.
Acceptability of intervention provider Almost all participants perceived the provision of a supportive relationship between an ELSA (trained support worker) to be a fundamental aim of the programme and essential to its effectiveness and valued its 'separateness' from usual school and family relationships.	Wilding 2016	**Minor concerns** 1 study with moderate risk of bias due to unclear reflexivity	Not applicable as only one study included	**Moderate concerns** Limited to data from one study with only parents as informants.	**No concerns** Study related to the views and experiences of targeted social and emotional support	**Moderate confidence** Data from a single study and unable to check for inconsistency.
Effectiveness of the intervention	McGeechan 2019 Wilding 2016	**Moderate concerns**	**No concerns** Finding reflects the	**No concerns** Data obtained from 2 studies	**No concerns** Study related to the views	**High confidence**

Summary of review finding	Studies contributing to review finding	Methodological limitations	Coherence	Adequacy	Relevance	CERQual assessment of confidence in the evidence
Changes after the intervention Young people found that mindfulness helped them to relax and taught them how to cope in stressful situations. This in turn helps with concentration in class which meant that were less likely to receive sanctions for their behaviour. They reported that they were also able to use the skills they learned at home. **Continued engagement** Many young people continued to practice mindfulness at home after the intervention was completed. Teachers agreed that there were potential benefits of mindfulness but felt that it was not the right approach for everyone. **Parents' perceptions** Parents described how the programme supported their child to regulate emotions. They noted improvements in social development such as relationships with friends and family and acknowledge the development of emotional literacy as a foundation for subsequent learning and coping strategies.		2 studies with moderate risk of bias due to unclear reflexivity	data from all studies that report on this theme.	with views from young people, teachers and parents.	and experiences of targeted social and emotional support	There was still consistency in the findings between the studies.
Communication with parents	McGeechan 2019	**Moderate concerns**	**No concerns**	**No concerns**	**No concerns**	**High confidence**

Summary of review finding	Studies contributing to review finding	Methodological limitations	Coherence	Adequacy	Relevance	CERQual assessment of confidence in the evidence
Talking to parents about participation Young people spoke about the varying degrees to which they had discussed their participation in the mindfulness programme with their parents). Most young people did not think their parents were aware they were taking part despite parental consent being required. **Keeping in contact with parents about the intervention** Parents were only able to discuss the aims of a particular intervention in terms of their child's individual needs rather than the broader aims of the programme. Schools need to provide parents with more information relating to the programme overview. They also felt there was generally little or no contact with the school throughout.	Wilding 2016	2 studies with moderate risk of bias due to unclear reflexivity	Finding reflects the data from all studies that report on this theme.	Data obtained from 2 studies with views from young people, teachers and parents.	Study related to the views and experiences of targeted social and emotional support	There was still consistency in the findings between the studies.
Unintended consequences **Stigma** Where targeting for intervention was due to behavioural problems, students experienced negative labelling. Even if the reasons were not made explicit, the students were able to work it out as other participants in the group were known to be 'naughty'. Because it is known that the school	Evans 2015 Wilding 2016	**Minor concerns** 1 study with low risk of bias and 1 study with moderate risk of bias due to unclear reflexivity	**No concerns** Finding reflects the data from all studies that report on this theme.	**No concerns** Data obtained from 2 studies with views from young people, and parents.	**No concerns** Study related to the views and experiences of targeted social and emotional support	**High confidence** There was still consistency in the findings between the studies with moderate risk of bias and

Summary of review finding	Studies contributing to review finding	Methodological limitations	Coherence	Adequacy	Relevance	CERQual assessment of confidence in the evidence
environment is built around the eradication of 'naughtiness', the students were aware of the negative connotations of labelling and felt that the school's desire was to exclude them. This in turn led to increased resistance to school and increased anti-school attitudes. However, where the reasons for targeting were focused on care and support students spoke of how fortunate they were and how they finally felt visible in a place where they had often been overlooked. **Reinforcement of problem behaviour** While initially the labelling was considered as undesirable for some students, they later recognised that this labelling could be used to renegotiate and strengthen their position within the broader peer group. It also means that in order to maintain this status, participants were less willing to listen to the intervention messages. They also debated who had 'rights to membership' in the group. **Creating new issues** Parents expressed uncertainty regarding the criteria used to determine when children were ready to move on from the programme.						the study with low risk of bias.

F.2.2 Barriers and facilitators to targeted social and emotional support in primary, secondary and further education

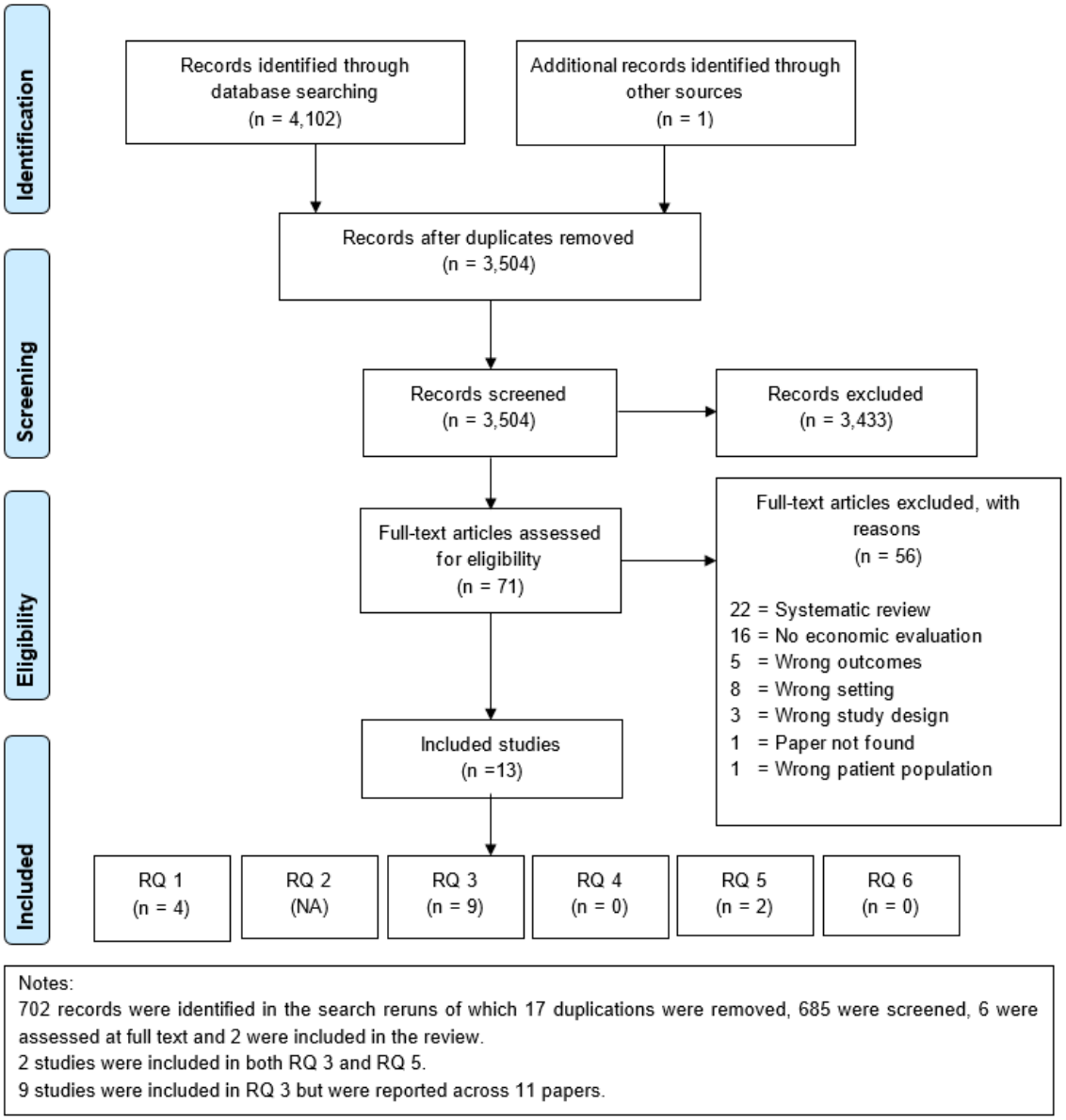
Table 16: Barriers and facilitators

Summary of review finding	Studies contributing to review finding	Methodological limitations	Coherence	Adequacy	Relevance	CERQual assessment of confidence in the evidence
Identifying children and young people who may benefit from a targeted intervention: Barriers • The intervention was intended to offer additional support to overlooked students with effort to be made in providing a positive targeting experience in order to avoid stigma. However, schools were using the interventions to eliminate problematic behaviours of challenging students who compromised academic learning of other students. These students were seen as undesirable in the classroom and there appears to be no effort to provide a positive targeting experience.	Evans 2015	**No concerns** 1 study with low risk of bias	Not applicable as only one study included	**Minor concerns** Limited to data from one study.	**No concerns** Study related to the views and experiences barriers to targeted mental health support	**Moderate confidence** Data from a single study and unable to check for inconsistency.
Planning the intervention: Barriers • Whilst teachers felt it was practical to deliver the interventions in groups it was recognised that this is logistically difficult, especially when needing to take the pupils out of class regularly.	Evans 2015	**No concerns** 1 study with low risk of bias	Not applicable as only one study included	**Minor concerns** Limited to data from one study.	**No concerns** Study related to the views and experiences barriers to	**Moderate confidence** Data from a single study and unable to

Summary of review finding	Studies contributing to review finding	Methodological limitations	Coherence	Adequacy	Relevance	CERQual assessment of confidence in the evidence
• The presence of existing friendship groups in the intervention group ensured that maintaining these relationships was more important that the intervention and students used them to protect themselves from the alien context of the intervention. They would also retreat within these friendship groups to defend them from the 'uncool' socially isolated peers who had also been targeted.					targeted mental health support	check for inconsistency.
Planning the intervention: Facilitators • A school that targeted students based on individual needs had more diverse groups. None of these individuals were bound by closely bonded friendships or entrenched behavioural norms. Endorsement of 'bad behaviours' did not feature in this group. Rather students behaved differently from how they habitually acted within the broader context of their lives.	Evans 2015	**No concerns** 1 study with low risk of bias1	Not applicable as only one study included	**Minor concerns** Limited to data from one study.	**No concerns** Study related to the views and experiences barriers to targeted mental health support	**Moderate confidence** Data from a single study and unable to check for inconsistency.
Cost effectiveness: Barriers • Teachers noted that schools were generally supportive of trialling the mindfulness programme but once the schools had to pay to deliver the course there was a change in attitude in management and	McGeechan 2019 Tucker 2013	**No concerns** 2 studies with low risk of bias	**No concerns** Finding reflects the data from all studies that report on this theme.	**Minor concerns** Data from 2 studies but limited to only school staff as the informants.	**No concerns** Study related to the views and experiences barriers to targeted	**High confidence** There is consistency across both studies.

Summary of review finding	Studies contributing to review finding	Methodological limitations	Coherence	Adequacy	Relevance	CERQual assessment of confidence in the evidence
alternative, cheaper programmes were sought. • Teachers discussed the need for evidence that an intervention (mindfulness) would be of long-term benefit to a significant number of students for the school to revisit the idea of commissioning the service. However, this relies on the teachers gathering this evidence. Some teaching staff were sceptical about the likely long-term impact of targeted approaches. They were seen as potentially 'divisive', 'counter-productive as it might appear to reward poor behaviour with treats' and dangerous in terms of stereotyping some kids and their families'					mental health support	

Appendix G: Economic evidence study selection



Appendix H: Economic evidence tables

No published economic studies were included in this review.

Appendix I: Health economic model

See Evidence Review J for a full write-up of the economic model.

Appendix J: Excluded studies

Effectiveness studies

Study	Code [Reason]
, Simon, Thomas R, Ikeda, Robin M et al. (2008) The multisite violence prevention project: impact of a universal school-based violence prevention program on social-cognitive outcomes. Prevention Science 9(4): 231-244	- Universal intervention - Intervention not school-based Selected intervention was community-based
Apsler, R., Formica, S., Fraster, B. et al. (2006) Promoting positive adolescent development for at-risk students with a student assistance program. Journal of primary prevention 27(6): 533-554	- Publication date before 2007
Attwood, Megan, Meadows, Sara, Stallard, Paul et al. (2012) Universal and targeted computerised cognitive behavioural therapy (Think, Feel, Do) for emotional health in schools: Results from two exploratory studies. Child and Adolescent Mental Health 17(3): 173-178	- Study design - No control group For targeted intervention only - case series
Auslander, Wendy, Edmond, Tonya, Foster, April et al. (2020) Cognitive behavioral intervention for trauma in adolescent girls in child welfare: A randomized controlled trial. Children and Youth Services Review 119	- Intervention not school-based
Ball, Barbara, Holland, Kristin M, Marshall, Khiya J et al. (2015) Implementing a targeted teen dating abuse prevention program: challenges and successes experienced by expect respect facilitators. The Journal of adolescent health : official publication of the Society for Adolescent Medicine 56(2suppl2): 40-6	- Non-UK qualitative study
Bauminger-Zviely, N, Estrugo, Y, Samuel-Magal, K et al. (2019) Communicating Without Words: school-Based RCT Social Intervention in Minimally Verbal Peer Dyads with ASD. Journal of clinical child and adolescent psychology: 1-17	- Population - Primary and secondary age. Data not disaggregated
Beaumont, R., Walker, H., Weiss, J. et al. (2021) Randomized Controlled Trial of a Video Gaming-Based Social Skills Program for Children on the Autism Spectrum. Journal of Autism and Developmental Disorders	- Comparator - not usual education
Beaumont, Renae and Sofronoff, Kate (2008) A multi-component social skills intervention for children with Asperger syndrome: the Junior Detective Training Program. Journal of child psychology and psychiatry, and allied disciplines 49(7): 743-53	- Setting - not school-based
Benas, J. S., McCarthy, A. E., Haimm, C. A. et al. (2019) The Depression Prevention Initiative: Impact on Adolescent Internalizing and Externalizing Symptoms in a Randomized Trial. Journal of clinical child and adolescent psychology : the official journal for the Society of Clinical Child and Adolescent Psychology, American Psychological Association, Division 53 48(supplement1): 57-s71	- Comparator - not usual education

Study	Code [Reason]
Bernstein, G. A., Layne, A. E., Egan, E. A. et al. (2005) School-based interventions for anxious children. Journal of the american academy of child and adolescent psychiatry 44(11): 1118-1127	- Publication date before 2007 - Setting - delivered out of school hours
Bernstein, Gail A, Bernat, Debra H, Victor, Andrea M et al. (2008) School-based interventions for anxious children: 3-, 6-, and 12-month follow-ups. Journal of the American Academy of Child and Adolescent Psychiatry 47(9): 1039-47	- Population - majority not subclinical
Bevan Jones, Rhys, Thapar, Anita, Stone, Zoe et al. (2018) Psychoeducational interventions in adolescent depression: A systematic review. Patient education and counseling 101(5): 804-816	- Study design - Systematic review
Bierman, K. L., Coie, J. D., Dodge, K. A. et al. (2002) Evaluation of the first 3 years of the Fast Track prevention trial with children at high risk for adolescent conduct problems. Journal of Abnormal Child Psychology 30(1): 19-35	- Publication date before 2007
Bluth, Karen, Campo, Rebecca A., Pruteanu-Malinici, Sarah et al. (2016) A school-based mindfulness pilot study for ethnically diverse at-risk adolescents. Mindfulness 7(1): 90-104	- Comparator - not usual education
BONE, Claire and et, al (2015) Students ' understandings of mental health and their preferred learning platforms. Journal of Public Mental Health 14(4): 185-195	- Focus for qualitative study not on an intervention
Bothe, Denise A; Grignon, Josephine B; Olness, Karen N (2014) The effects of a stress management intervention in elementary school children. Journal of developmental and behavioral pediatrics : JDBP 35(1): 62-7	- Universal intervention
Boyes, ME, Leitao, S, Claessen, M et al. (2020) Piloting 'Clever Kids': a randomized-controlled trial assessing feasibility, efficacy, and acceptability of a socioemotional well-being programme for children with dyslexia. British journal of educational psychology: e12401	- Pre-print
Bri?re, Fr?d?ric N., Reigner, Anne, Yale-Souli?re, Gabrielle et al. (2019) Effectiveness Trial of Brief Indicated Cognitive-Behavioral Group Depression Prevention in French-Canadian Secondary Schools. School Mental Health 11(4): 728-740	- Comparator - not usual education
Brondino; Michael, J.; And, Others (1989) Coping Skills Training with Adolescents at Risk for Substance Abuse. National inst. on drug abuse (DHHS/PHS), rockville, md.: 20	- Publication date before 2007
Caldarella, Paul, Larsen, Ross A., Williams, Leslie et al. (2018) Effects of CW-FIT on Teachers' Ratings of Elementary School Students at Risk for Emotional and Behavioral Disorders. Journal of Positive Behavior Interventions 20(2): 78-89	- Assessing risk - Universal intervention Delivered to all students

Study	Code [Reason]
Carroll, Annemaree, Ashman, Adrian, Hemingway, Francene et al. (2012) A preliminary evaluation of Mindfields: A self-regulatory cognitive behavioural program for school-aged adolescent offenders. The Australian Educational and Developmental Psychologist 29(2): 81-94	- Setting - not school-based
Cavell, Timothy A., Elledge, L. Christian, Malcolm, Kenya T. et al. (2009) Relationship Quality and the Mentoring of Aggressive, High-Risk Children. Journal of Clinical Child and Adolescent Psychology 38(2): 185-198	- Comparator - not usual education
Children, Education and Skills, Scottish Government (2019) Additional Support for Learning: research on the experience of children and young people and those that support them.: 75	- Non-SEW intervention
Chou, Yu-Chi (2020) Navigation of Social Engagement (NOSE) Project: Using a Self-Directed Problem Solving Model to Enhance Social Problem-Solving and Self-Determination in Youth with Autism Spectrum Disorders. Education and Training in Autism and Developmental Disabilities 55(1): 101-114	- Non-OECD country
Chu, Brian C, Crocco, Sofia T, Esseling, Petra et al. (2016) Transdiagnostic group behavioral activation and exposure therapy for youth anxiety and depression: Initial randomized controlled trial. Behaviour research and therapy 76: 65-75	- Population - majority not subclinical
Claro, Anthony; Boulanger, Marie-Michelle; Shaw, Steven R (2015) Targeting vulnerabilities to risky behavior: An intervention for promoting adaptive emotion regulation in adolescents. Contemporary School Psychology 19(4): 330-339	- Study design - No control group Control group non-equivalent
COHOLIC Diana, A. and EYS, Mark (2016) Benefits of an arts-based mindfulness group intervention for vulnerable children. Child and Adolescent Social Work Journal 33(1): 1-13	- Non-UK qualitative study
Conrod, PJ; Castellanos-Ryan, N; Mackie, C (2011) Long-term effects of a personality-targeted intervention to reduce alcohol use in adolescents. Journal of consulting and clinical psychology 79(3): 296-306	- Intervention - Wrong aim Alcohol intervention
Conroy, Maureen A., Sutherland, Kevin S., Algina, James et al. (2018) Prevention and Treatment of Problem Behaviors in Young Children: Clinical Implications from a Randomized Controlled Trial of BEST in CLASS. AERA Open 4(1): 1-16	- Population - early years foundation stage
Costello, Karen M. and Smyth, Sinead (2017) Group contingencies to increase school and project attendance in at-risk adolescents: A pilot study. Education & Treatment of Children 40(3): 379-400	- Study design - No control group

Study	Code [Reason]
Cova, F.; Rincon, P.; Melipillan, R. (2011) Evaluation of the efficacy of a prevention program for depression in female adolescents. Terapia Psicologica 29(2): 245-250	- Non-English language article
Cristea, Ioana-Alina; Benga, Oana; Opre, Adrian (2008) The implementation of a rational-emotive educational intervention for anxiety in a 3rd grade classroom: An analysis of relevant procedural and developmental constraints. Journal of Cognitive and Behavioral Psychotherapies 8(1): 31-51	- Non-OECD country
Daki, Julia and Savage, Robert S. (2010) Solution-Focused Brief Therapy: Impacts on Academic and Emotional Difficulties. Journal of Educational Research 103(5): 309-326	- Comparator - not usual education
de Hullu, Eva, Sportel, B Esther, Nauta, Maaike H et al. (2017) Cognitive bias modification and CBT as early interventions for adolescent social and test anxiety: Two-year follow-up of a randomized controlled trial. Journal of behavior therapy and experimental psychiatry 55: 81-89	- Population - above cut off for social phobia and/or test anxiety
De Jonge-Heesen, K.W.J., Rasing, S.P.A., Vermulst, A.A. et al. (2020) Randomized control trial testing the effectiveness of implemented depression prevention in high-risk adolescents. BMC Medicine 18(1): 188	- Comparator - not usual education
de la Torre-Luque, A., Fiol-Veny, A., Essau, C.A. et al. (2020) Effects of a transdiagnostic cognitive behaviour therapy-based programme on the natural course of anxiety symptoms in adolescence. Journal of Affective Disorders 264: 474-482	- No extractable outcome data
DeRosier, M. E. (2004) Building relationships and combating bullying: effectiveness of a school-based social skills group intervention. Journal of clinical child and adolescent psychology 33(1): 196-201	- Publication date before 2007
Dougherty, Danielle and Sharkey, Jill (2017) Reconnecting Youth: Promoting emotional competence and social support to improve academic achievement. Children and Youth Services Review 74: 28-34	- No extractable outcome data
Duong, M. T., Cruz, R. A., King, K. M. et al. (2016) Twelve-Month Outcomes of a Randomized Trial of the Positive Thoughts and Action Program for Depression Among Early Adolescents. Prevention science 17(3): 295-305	- Comparator - not usual education Comparator was individual counselling
Eacott, Chelsea and Frydenberg, Erica (2009) Promoting positive coping skills for rural youth: benefits for at-risk young people. The Australian journal of rural health 17(6): 338-45	- Comparator - not usual education
Edward, Kumakech (2009) Peer-group support intervention improves the psychosocial well-being of AIDS orphans: cluster randomized trial. Social Science and Medicine 68(6): 1038-1043	- Non-OECD country

Study	Code [Reason]
Essau, C.A., Sasagawa, S., Jones, G. et al. (2019) Evaluating the real-world effectiveness of a cognitive behavior therapy-based transdiagnostic program for emotional problems in children in a regular school setting. Journal of Affective Disorders 253: 357-365	- Study design - No control group
Etherington, V Costello, S (2019) Comparing Universal and Targeted Delivery of a Mindfulness-Based Program for Anxiety in Children. JOURNAL OF PSYCHOLOGISTS AND COUNSELLORS IN SCHOOLS 29(1): 22-38	- Study design - No control group
Feiss, Robyn, Dolinger, Sarah Beth, Merritt, Monaye et al. (2019) A Systematic Review and Meta-Analysis of School-Based Stress, Anxiety, and Depression Prevention Programs for Adolescents. Journal of youth and adolescence 48(9): 1668-1685	- Study design - Systematic review
Firth, Nola, Frydenberg, Erica, Steeg, Charlotte et al. (2013) Coping successfully with dyslexia: an initial study of an inclusive school-based resilience programme. Dyslexia (Chichester, England) 19(2): 113-30	- Study design - No control group
Fite, Paula J, Cooley, John L, Poquiz, Jonathan et al. (2019) Pilot evaluation of a targeted intervention for peer-victimized youth. Journal of Clinical Psychology 75(1): 46-65	- No extractable outcome data
Fung, Annis L. C (2007) A qualitative evaluation of social-cognitive changes in children with reactively aggressive behaviors. Journal of School Violence 6(1): 45-64	- Non-UK qualitative study
GALLAGHER, Jen and SCHOSSER, Annette (2015) Service users' experiences of a brief intervention service for children and adolescents: a service evaluation. Child Care in Practice 21(4): 374-391	- Setting - not school-based
Gatzke-Kopp, LM; Greenberg, M; Bierman, K (2015) Children's parasympathetic reactivity to specific emotions moderates response to intervention for early-onset aggression. Journal of clinical child and adolescent psychology 44(2): 291-304	- Comparator - not usual education
Ginsburg, Golda S, Pella, Jeffrey E, Pikulski, Paige J et al. (2020) School-Based Treatment for Anxiety Research Study (STARS): A randomized controlled effectiveness trial. Journal of Abnormal Child Psychology 48(3): 407-417	- Outcome data not usable
Girio-Herrera, E., Ehrlich, C.J., Danzi, B.A. et al. (2019) Lessons Learned About Barriers to Implementing School-Based Interventions for Adolescents: Ideas for Enhancing Future Research and Clinical Projects. Cognitive and Behavioral Practice 26(3): 466-477	- Non-UK qualitative study
Gold, Christian, Saarikallio, Suvi, Crooke, Alexander Hew Dale et al. (2017) Group Music Therapy as a Preventive Intervention for Young	- Comparator - not usual education

Study	Code [Reason]
People at Risk: Cluster-Randomized Trial. Journal of music therapy 54(2): 133-160	
Gormez, V., Kilic, H. N., Orengul, A. C. et al. (2017) Evaluation of a school-based, teacher-delivered psychological intervention group program for trauma-affected Syrian refugee children in Istanbul, Turkey. Psychiatry and clinical psychopharmacology 27(2): 125-131	- Study design - No control group
Gronholm, Petra C; Nye, Elizabeth; Michelson, Daniel (2018) Stigma related to targeted school-based mental health interventions: A systematic review of qualitative evidence. Journal of affective disorders 240: 17-26	- Study design - Systematic review
Haft, S.L., Chen, T., LeBlanc, C. et al. (2019) Impact of mentoring on socio-emotional and mental health outcomes of youth with learning disabilities and attention-deficit hyperactivity disorder. Child and Adolescent Mental Health	- Setting - delivered out of school hours
Haugland, B.S.M., Haaland, A.T., Baste, V. et al. (2020) Effectiveness of Brief and Standard School-Based Cognitive-Behavioral Interventions for Adolescents With Anxiety: A Randomized Noninferiority Study. Journal of the American Academy of Child and Adolescent Psychiatry 59(4): 552	- Outcomes - not disaggregated between multiple interventions
Henneberger, Angela K, Deutsch, Nancy L, Lawrence, Edith C et al. (2013) The Young Women Leaders Program: A mentoring program targeted toward adolescent girls. School Mental Health: A Multidisciplinary Research and Practice Journal 5(3): 132-143	- Setting - delivered out of school hours
Hickey, Grainne, McGilloway, Sinead, Hyland, Lynda et al. (2017) Exploring the Effects of a Universal Classroom Management Training Programme on Teacher and Child Behaviour: A Group Randomised Controlled Trial and Cost Analysis. Journal of Early Childhood Research 15(2): 174-194	- Universal intervention
Hojjat, Seyed Kaveh, Golmakani, Ebrahim, Norozi Khalili, Mina et al. (2015) The Effectiveness of Group Assertiveness Training on Happiness in Rural Adolescent Females With Substance Abusing Parents. Global journal of health science 8(2): 156-64	- Non-OECD country
Hoogendijk, Kirsten, Holland, Judith G., Tick, Nouchka T. et al. (2020) Effect of Key2Teach on Dutch Teachers' Relationships with Students with Externalizing Problem Behavior: A Randomized Controlled Trial. European Journal of Psychology of Education 35(1): 111-135	- Intervention - Teacher focused
Horowitz, Jason L, Garber, Judy, Ciesla, Jeffrey A et al. (2007) Prevention of depressive symptoms in adolescents: a randomized trial of cognitive-behavioral and interpersonal prevention programs. Journal of consulting and clinical psychology 75(5): 693-706	- Universal intervention

Study	Code [Reason]
Hutchings, Judy, Bywater, Tracey, Gridley, Nicole et al. (2012) The Incredible Years Therapeutic Social and Emotional Skills Programme: A Pilot Study. School Psychology International 33(3): 285-293	- Universal intervention With a high-risk subgroup
Iachini, Aidyn L., Brown, Elizabeth Levine, Ball, Annahita et al. (2015) School Mental Health Early Interventions and Academic Outcomes for At-Risk High School Students: A Meta-Analysis. Advances in School Mental Health Promotion 8(3): 156-175	- Study design - Systematic review
Irfan Arif, Muhammad and Mirza, Munawar S. (2017) Effectiveness of an Intervention Program in Fostering Academic Resilience of Students at Risk of Failure at Secondary School Level. Bulletin of Education and Research 39(1): 251-264	- Non-OECD country
Jarrett, Matthew, Siddiqui, Salma, Lochman, John et al. (2014) Internalizing problems as a predictor of change in externalizing problems in at-risk youth. Journal of clinical child and adolescent psychology : the official journal for the Society of Clinical Child and Adolescent Psychology, American Psychological Association, Division 53 43(1): 27-35	- Secondary publicationof a study published before 2007
Jurecska, Diomaris E; Hamilton, Elizabeth B; Peterson, Mary A (2011) Effectiveness of the coping power program in middle-school children with disruptive behaviours and hyperactivity difficulties. Support for Learning 26(4): 168-172	- Universal intervention
Kato, Sumie and Shimizu, Eiji (2017) A pilot study on the effectiveness of a school-based cognitive-behavioral anxiety intervention for 8- and 9-year-old children: A controlled trial in Japan. Mental Health and Prevention 8: 32-38	- Universal intervention
Kelly, Erin V, Newton, Nicola C, Stapinski, Lexine A et al. (2019) A Novel Approach to Tackling Bullying in Schools: Personality-Targeted Intervention for Adolescent Victims and Bullies in Australia. Journal of the American Academy of Child and Adolescent Psychiatry	- No extractable outcome data
Keogh, Edmund; Bond, Frank W.; Flaxman, Paul E. (2006) Improving academic performance and mental health through a stress management intervention: Outcomes and mediators of change. Behaviour Research and Therapy 44(3): 339-357	- Publication date before 2007
Kern, L Evans, SW Lewis, TJ State, TM Mehta, PD Weist, MD Wills, HP Gage, NA Evaluation of a Comprehensive Assessment-Based Intervention for Secondary Students With Social, Emotional, and Behavioral Problems. JOURNAL OF EMOTIONAL AND BEHAVIORAL DISORDERS	- No extractable outcome data
Kindt, Karlijn C M, Kleinjan, Marloes, Janssens, Jan M A M et al. (2014) Evaluation of a school-based depression prevention program among	- Universal intervention

Study	Code [Reason]
adolescents from low-income areas: a randomized controlled effectiveness trial. International journal of environmental research and public health 11(5): 5273-93	
Kliewer, W., Lepore, S. J., Farrell, A. D. et al. (2011) A school-based expressive writing intervention for at-risk urban adolescents' aggressive behavior and emotional lability. Journal of clinical child and adolescent psychology 40(5): 693-705	- Unselected population
Kosters, Mia P, Chinapaw, Mai J M, Zwaanswijk, Marieke et al. (2015) Indicated Prevention of Childhood Anxiety and Depression: Results From a Practice-Based Study up to 12 Months After Intervention. American journal of public health 105(10): 2005-13	- Universal intervention
Lam, Kanei (2016) School-based cognitive mindfulness intervention for internalizing problems: Pilot study with Hong Kong elementary students. Journal of Child and Family Studies 25(11): 3293-3308	- Setting - delivered out of school hours
Lamb, J. M., Puskar, K. R., Sereika, S. M. et al. (1998) School-based intervention to promote coping in rural teens. MCN. The american journal of maternal child nursing 23(4): 187-194	- Publication date before 2007
Larkin, R. and Thyer, B. A. (1999) Evaluating cognitive-behavioral group counseling to improve elementary school students' self-esteem, self-control, and classroom behavior. Behavioral interventions 14(3): 147-161	- Publication date before 2007
Lattie, E.G., Ho, J., Sargent, E. et al. (2017) Teens engaged in collaborative health: The feasibility and acceptability of an online skill-building intervention for adolescents at risk for depression. Internet Interventions 8: 15-26	- Study design - No control group Non-equivalent control group
Lau, Anna S, Kim, Joanna J, Nguyen, Diem Julie et al. (2019) Effects of Preference on Outcomes of Preventive Interventions among Ethnically Diverse Adolescents At-Risk of Depression. Journal of clinical child and adolescent psychology : the official journal for the Society of Clinical Child and Adolescent Psychology, American Psychological Association, Division 53: 1-17	- Comparator - not usual education
Lau, Ngar Sze and Hue, Ming Tak (2011) Preliminary outcomes of a mindfulness-based programme for Hong Kong adolescents in schools: Well-being, stress and depressive symptoms. International Journal of Children's Spirituality	- Non-OECD country
Laugeson, E. A., Ellingsen, R., Sanderson, J. et al. (2014) The ABC's of teaching social skills to adolescents with autism spectrum disorder in the classroom: the UCLA PEERS program. Journal of autism and developmental disorders 44(9): 2244-2256	- Comparator - not usual education

Study	Code [Reason]
Lee, Susanne S, Victor, Andrea M, James, Matthew G et al. (2016) School-Based Interventions for Anxious Children: Long-Term Follow-Up. Child psychiatry and human development 47(2): 183-93	- Secondary publicationof a study published before 2007
Levy, Suzanne, Mason, Syreeta, Russon, Jody et al. (2021) Attachment-based family therapy in the age of telehealth and COVID-19. Journal of marital and family therapy	- Study design - Not an intervention study
Livheim, Fredrik, Hayes, Louise, Ghaderi, Ata et al. (2015) The effectiveness of Acceptance and Commitment Therapy for adolescent mental health: Swedish and Australian pilot outcomes *SWEDEN*. Journal of Child and Family Studies 24(4): 1016-1030	- Setting - delivered out of school hours
Lobo, Yovanka B. and Winsler, Adam (2006) The Effects of a Creative Dance and Movement Program on the Social Competence of Head Start Preschoolers. Social Development 15(3): 501-519	- Publication date before 2007
Lochman, J. E. and Wells, K. C. (2002) The Coping Power program at the middle-school transition: universal and indicated prevention effects. Psychology of addictive behaviors 16(4s): 40-54	- Setting - delivered out of school hours - Publication date before 2007
Lochman, John E, Wells, Karen C, Qu, Lixin et al. (2013) Three year follow-up of coping power intervention effects: evidence of neighborhood moderation?. Prevention science : the official journal of the Society for Prevention Research 14(4): 364-76	- Secondary publicationof a study published before 2007
Lochmann, Je, Fitz et al. (2001) Effects of a social cognitive intervention for aggressive deaf children: the Coping Power Program. Jadara 35(2): 39-61	- Publication date before 2007
Loucas, Christina E, Sclare, Irene, Stahl, Daniel et al. (2020) Feasibility randomized controlled trial of a one-day CBT workshop ('DISCOVER') for 15- to 18-year-olds with anxiety and/or depression in clinic settings. Behavioural and cognitive psychotherapy 48(2): 142-159	- Intervention not school-based
Love, Letanya A (2020) A Pilot Study Examining the Treatment Feasibility, Acceptability, and Initial Outcomes of STEPS (Student Training for Educational and Personal Success): A Social-Emotional Learning Program for Black Males.	- Dissertation or thesis
Luxford, Sarah; Hadwin, Julie A.; Kovshoff, Hanna (2017) Evaluating the Effectiveness of a School-Based Cognitive Behavioural Therapy Intervention for Anxiety in Adolescents Diagnosed with Autism Spectrum Disorder. Journal of Autism and Developmental Disorders 47(12): 3896-3908	- Treatment of anxiety
Maynard, Brandy R.; Kjellstrand, Elizabeth K.; Thompson, Aaron M. (2014) Effects of Check and Connect on Attendance, Behavior, and Academics: A Randomized Effectiveness Trial.	- No extractable outcome data

Study	Code [Reason]
Research on Social Work Practice 24(3): 296-309	
Mazurek Melnyk, Bernadette; Kelly, Stephanie; Lusk, Pamela (2014) Outcomes and Feasibility of a Manualized Cognitive-Behavioral Skills Building Intervention: Group COPE for Depressed and Anxious Adolescents in School Settings. Journal of child and adolescent psychiatric nursing : official publication of the Association of Child and Adolescent Psychiatric Nurses, Inc 27(1): 3-13	- Study design - No control group
McArdle, Paul, Young, Robert, Quibell, Toby et al. (2011) Early intervention for at risk children: 3-year follow-up. European child & adolescent psychiatry 20(3): 111-20	- Secondary publicationof a study published before 2007 - Population - Primary and secondary age. Data not disaggregated
McCarty, CA, Violette, HD, Duong, MT et al. (2013) A randomized trial of the Positive Thoughts and Action program for depression among early adolescents. Journal of clinical child and adolescent psychology 42(4): 554-563	- Comparator - not usual education
Mckenna, A.E.; Cassidy, T.; Giles, M. (2014) Prospective evaluation of the pyramid plus psychosocial intervention for shy withdrawn children: An assessment of efficacy in 7- to 8-year-old school children in Northern Ireland. Child and Adolescent Mental Health 19(1): 9-15	- Study design - No control group Non-equivalent control group
Mendelson, Tamar, Greenberg, Mark T., Dariotis, Jacinda K. et al. (2010) Feasibility and Preliminary Outcomes of a School-Based Mindfulness Intervention for Urban Youth. Journal of Abnormal Child Psychology 38(7): 985-994	- Unselected population
Menrath, I., Pr??mann, M., M?ller-Godeffroy, E. et al. (2015) Effectiveness of School-Based Life Skills Programmes on Secondary Schoolchildren in a High Risk Sample. Gesundheitswesen (bundesverband der arzte des offentlichen gesundheitsdienstes (germany)) 77suppl1: 76-7	- Non-English language article
Metropolitan Area Child Study Research, Group (2007) Changing the way children "think" about aggression: social-cognitive effects of a preventive intervention. Journal of consulting and clinical psychology 75(1): 160-7	- Secondary publicationof a study published before 2007
Mikami, A. Y., Griggs, M. S., Lerner, M. D. et al. (2013) A randomized trial of a classroom intervention to increase peers' social inclusion of children with attention-deficit/hyperactivity disorder. Journal of consulting and clinical psychology 81(1): 100-112	- Setting - delivered out of school hours
Miller, Thomas W.; Kraus, Robert F.; Veltkamp, Lane J. (2008) Character education as a prevention strategy for school-related violence. School violence and primary prevention.: 377-390	- Setting - delivered out of school hours

Study	Code [Reason]
Milligan, K, Cosme, R, Wolfe Miscio, M et al. (2017) Integrating mindfulness into mixed martial arts training to enhance academic, social, and emotional outcomes for at-risk high school students: A qualitative exploration. Contemporary School Psychology 21(4): 335-346	- Non-UK qualitative study
Milligan, Karen, Irwin, Alexandra, Wolfe-Miscio, Michelle et al. (2016) Mindfulness enhances use of secondary control strategies in high school students at risk for mental health challenges. Mindfulness 7(1): 219-227	- Population - Large proportion already being treated for anxiety or depression
Molina, Brooke S. G., Flory, Kate, Bukstein, Oscar G. et al. (2008) Feasibility and Preliminary Efficacy of an After-School Program for Middle Schoolers with ADHD: A Randomized Trial in a Large Public Middle School. Journal of Attention Disorders 12(3): 207-217	- Setting - delivered out of school hours
Moneta, I. and Rousseau, C. (2008) Emotional expression and regulation in a school-based drama workshop for immigrant adolescents with behavioral and learning difficulties. Arts in Psychotherapy 35(5): 329-340	- Non-UK qualitative study
Morales, Jeanine Anna (2021) Social emotional learning curriculum in middle school students with disabilities. Dissertation Abstracts International Section A: Humanities and Social Sciences 82(3a): no-specified	- Dissertation or thesis
MOWAT Joan, Gaynor (2010) Towards the development of self-regulation in pupils experiencing social and emotional behavioural difficulties (SEBD). Emotional and Behavioural Difficulties 15(3): 189-206	- Qualitative measure of effectiveness
Mowat, Joan Gaynor (2010) Inclusion of Pupils Perceived as Experiencing Social and Emotional Behavioural Difficulties (SEBD): Affordances and Constraints. International Journal of Inclusive Education 14(6): 631-648	- Qualitative measure of effectiveness
Naples, Lauren H. and Tuckwiller, Elizabeth D. (2021) Taking students on a strengths safari: A multidimensional pilot study of school-based wellbeing for young neurodiverse children. International Journal of Environmental Research and Public Health 18(13): 6947	- Non-SEMW outcomes
Natalie, Castellanos and Patricia, Conrod (2006) Brief interventions targeting personality risk factors for adolescent substance misuse reduce depression, panic and risk-taking behaviours. Journal of Mental Health 15(6): 645-658	- Publication date before 2007
Newgent, Rebecca A., Featherston, Larry W., Stegman, Charles E. et al. (2009) A Collaborative School-Based Mental Health Program that Helps Students Succeed. ERS Spectrum 27(2): 29-41	- Whole school intervention
Nijhof, K, Te Brinke, LW, Njardvik, U et al. (2021) The Role of Perspective Taking and Self-Control in a Preventive Intervention Targeting	- Comparator - not usual education

Study	Code [Reason]
Childhood Disruptive Behavior. Research on child and adolescent psychopathology	
Noel, La Tonya; Rost, Kathryn; Gromer, Jill (2013) Depression prevention among rural preadolescent girls: A randomized controlled trial. School Social Work Journal 38(1): 1-18	- Setting - delivered out of school hours
Obsuth, I., Sutherland, A., Cope, A. et al. (2017) London Education and Inclusion Project (LEIP): Results from a Cluster-Randomized Controlled Trial of an Intervention to Reduce School Exclusion and Antisocial Behavior. Journal of youth and adolescence 46(3): 538-557	- Comparator - not usual education
Obsuth, Ingrid, Sutherland, Alex, Pilbeam, Liv et al. (2014) London Education and Inclusion Project (LEIP): A cluster-randomised controlled trial protocol of an intervention to reduce antisocial behaviour and improve educational/occupational attainment for pupils at risk of school exclusion. BMC Psychology 2(1)	- Protocol
Ohl, Madeleine; Fox, Pauline; Mitchell, Kathryn (2013) Strengthening socio-emotional competencies in a school setting: Data from the Pyramid project. British Journal of Educational Psychology 83(3): 452-466	- Setting - delivered out of school hours
Omizo, M. M. and Omizo, S. A. (1987) The effects of group counselling on classroom behaviour and self-concept among elementary school learning disabled children. Exceptional children 34(1): 57-64	- Publication date before 2007
Orgiles, M., Melero, S., Fernandez-Martinez, I. et al. (2020) Effectiveness of video-feedback with cognitive preparation in improving social performance and anxiety through super skills for life programme implemented in a school setting. International Journal of Environmental Research and Public Health 17(8): 2805	- Study design - No control group
P, Neace William and A, Munoz Marco (2012) Pushing the boundaries of education: evaluating the impact of Second Step: A Violence Prevention Curriculum with psychosocial and non-cognitive measures. Child and Youth Services 33(1): 46-69	- Universal intervention With a subgroup of at-risk students
Pereira, Ana Isabel, Marques, Teresa, Russo, Vanessa et al. (2014) Effectiveness of the friends for life program in Portuguese schools: Study with a sample of highly anxious children. Psychology in the Schools 51(6): 647-657	- Treatment of anxiety
Philipsson, A., Duberg, A., Moller, M. et al. (2013) Cost-utility analysis of a dance intervention for adolescent girls with internalizing problems. Cost Effectiveness and Resource Allocation 11(1): 4	- Setting - not school-based - Study design - economic study
Pile, Victoria, Smith, Patrick, Oliver, Abigail et al. (2021) A feasibility randomised controlled trial of a brief early intervention for adolescent depression that targets emotional mental images	- Comparator - not usual education

Study	Code [Reason]
and memory specificity (IMAGINE). Behaviour Research and Therapy 143: 103876	
Pluess, Michael and Boniwell, Ilona (2015) Sensory-Processing Sensitivity predicts treatment response to a school-based depression prevention program: Evidence of Vantage Sensitivity. Personality and Individual Differences 82: 40-45	- Universal intervention
Possel, Patrick; Seemann, Simone; Hautzinger, Martin (2008) Impact of comorbidity in prevention of adolescent depressive symptoms. Journal of Counseling Psychology 55(1): 106-117	- Universal intervention
Price, Alan (2019) Using outdoor learning to augment social and emotional learning (SEL) skills in young people with social, emotional and behavioural difficulties (SEBD). Journal of Adventure Education and Outdoor Learning 19(4): 315-328	- No extractable outcome data
Putwain, David W and von der Embse, Nathaniel P (2020) Cognitive-behavioral intervention for test anxiety in adolescent students: do benefits extend to school-related wellbeing and clinical anxiety. Anxiety, stress, and coping: 1-15	- Population - above cut off for social phobia and/or test anxiety
Reid, M. J.; Webster-Stratton, C.; Hammond, M. (2007) Enhancing a classroom social competence and problem-solving curriculum by offering parent training to families of moderate-to high-risk elementary school children. Journal of clinical child and adolescent psychology 36(4): 605-620	- Parent intervention for at risk children - Universal intervention
Rotheram, Mary J. (1982) Social skills training with underachievers, disruptive, and exceptional children. Psychology in the Schools	- Publication date before 2007
Ruocco, Sylvia; Gordon, Jocelynne; McLean, Louise A (2016) Effectiveness of a school-based early intervention CBT group programme for children with anxiety aged 5-7 years. Advances in School Mental Health Promotion 9(1): 29-49	- Universal intervention
Russell, Chloe (2020) Mindfulness, Meditation and Yoga: A Feasibility Survey for a Pilot Program for Adolescents with Depression.	- Dissertation or thesis
Sae-Koew, Jonathan (2021) Prevention in adolescent mental health: The development and evaluation of school-based interventions in disadvantaged communities.	- Dissertation or thesis
Sahin, Mustafa (2012) An investigation into the efficiency of empathy training program on preventing bullying in primary schools. Children and Youth Services Review 34(7): 1325-1330	- Comparator - not usual education
Sanchez, A.L., Cornacchio, D., Poznanski, B. et al. (2018) The Effectiveness of School-Based Mental Health Services for Elementary-Aged Children: A Meta-Analysis. Journal of the	- Study design - Systematic review

Study	Code [Reason]
American Academy of Child and Adolescent Psychiatry 57(3): 153-165	
Sanchez, Oscar; Carrillo, Francisco X. Mendez; Garber, Judy (2016) Promoting resilience in children with depressive symptoms. Anales de Psicologia 32(3): 741-748	- Treatment for depression
Sapouna, Maria, Wolke, Dieter, Vannini, Natalie et al. (2010) Virtual learning intervention to reduce bullying victimization in primary school: a controlled trial. Journal of child psychology and psychiatry, and allied disciplines 51(1): 104-12	- Universal intervention
Scholten, Hanneke, Malmberg, Monique, Lobel, Adam et al. (2016) A Randomized Controlled Trial to Test the Effectiveness of an Immersive 3D Video Game for Anxiety Prevention among Adolescents. PloS one 11(1): e0147763	- Comparator - not usual education
Seligman, Martin E P; Schulman, Peter; Tryon, Alyssa M (2007) Group prevention of depression and anxiety symptoms. Behaviour research and therapy 45(6): 1111-26	- Population - undergraduates
Shechtman, Z. and Ifargan, M. (2009) School-based integrated and segregated interventions to reduce aggression. Aggressive behavior 35(4): 342-356	- Population - Primary and secondary age. Data not disaggregated
Shetty, Rima; Kongasseri, Sreejayan; Rai, Shweta (2020) Efficacy of Mindfulness Based Cognitive Therapy on Children With Anxiety. Journal of Cognitive Psychotherapy 34(4): 306-318	- Non-OECD country
Sloan, Seaneen, Winter, Karen, Connolly, Paul et al. (2020) The effectiveness of Nurture Groups in improving outcomes for young children with social, emotional and behavioural difficulties in primary schools: An evaluation of Nurture Group provision in Northern Ireland. Children and Youth Services Review 108	- Population - selected by school characteristics not SE need
Smedler, Ann-Charlotte, Hjern, Anders, Wiklund, Stefan et al. (2015) Programs for Prevention of Externalizing Problems in Children: Limited Evidence for Effect Beyond 6 Months Post Intervention. Child & youth care forum 44: 251-276	- Study design - Systematic review
Soorya, L. V., Siper, P. M., Beck, T. et al. (2015) Randomized comparative trial of a social cognitive skills group for children with autism spectrum disorder. Journal of the american academy of child and adolescent psychiatry 54(3): 208-216e1	- Treatment for ASD
Stallard, P., Phillips, R., Montgomery, A. A. et al. (2013) A cluster randomised controlled trial to determine the clinical effectiveness and cost-effectiveness of classroom-based cognitive-behavioural therapy (CBT) in reducing symptoms of depression in high-risk adolescents. Health Technology Assessment 17(47)	- Universal intervention Intervention was delivered to the whole-class (universally)

Study	Code [Reason]
Stallard, P., Sayal, K., Phillips, R. et al. (2012) Classroom based cognitive behavioural therapy in reducing symptoms of depression in high risk adolescents: pragmatic cluster randomised controlled trial. BMJ (clinical research ed.) 345: e6058	- Universal intervention Intervention was delivered to the whole-class (universally)
Stallard, P., Simpson, N., Anderson, S. et al. (2007) The FRIENDS emotional health programme: Initial findings from a school-based project. Child and Adolescent Mental Health 12(1): 32-37	- Study design - No control group
Stevens, Alex, Coulton, Simon, O'Brien, Kate et al. (2014) RisKit: The participatory development and observational evaluation of a multi-component programme for adolescent risk behaviour reduction. Drugs: Education, Prevention & Policy 21(1): 24-34	- Study design - No control group
Stewart, R.W., Orengo-Aguayo, R., Young, J. et al. (2020) Feasibility and effectiveness of a telehealth service delivery model for treating childhood posttraumatic stress: A community-based, open pilot trial of trauma-focused cognitive-behavioral therapy. Journal of Psychotherapy Integration 30(2): 274-289	- Intervention not school-based
Stoltz, Sabine, van Londen, Monique, Dekovic, Maja et al. (2012) Effectiveness of Individually Delivered Indicated School-Based Interventions on Externalizing Behavior. International Journal of Behavioral Development 36(5): 381-388	- Study design - Systematic review
Sutherland, K. S., Conroy, M. A., McLeod, B. D. et al. (2020) Preliminary Study of the Effects of BEST in CLASS--Elementary on Outcomes of Elementary Students with Problem Behavior. Journal of Positive Behavior Interventions 22(4): 220-233	- Intervention - Teacher focused
Sutherland, Kevin S., Conroy, Maureen A., Algina, James et al. (2018) Reducing Child Problem Behaviors and Improving Teacher-Child Interactions and Relationships: A Randomized Controlled Trial of Best in Class. Grantee Submission 42: 31-43	- Population - early years foundation stage
Sutherland, Kevin S., Conroy, Maureen A., McLeod, Bryce D. et al. (2018) Factors Associated with Teacher Delivery of a Classroom-Based Tier 2 Prevention Program. Grantee Submission 19(2): 186-196	- Non-UK qualitative study
Sutherland, Kevin S., Conroy, Maureen A., Vo, Abigail et al. (2015) Implementation Integrity of Practice-Based Coaching: Preliminary Results from the BEST in CLASS Efficacy Trial. School Mental Health 7(1): 1-13	- Population - early years foundation stage
Tanrikulu, Taskin; Kinay, Huseyin; Aricak, O. Tolga (2015) Sensibility development program against cyberbullying. New Media & Society 17(5): 708-719	- Universal intervention
Thompson, I. and Tawell, A. (2017) Becoming other: social and emotional development	- Setting - not school-based

Study	Code [Reason]
through the creative arts for young people with behavioural difficulties. Emotional and Behavioural Difficulties 22(1): 18-34	
Tol, Wietse A., Komproe, Ivan H., Jordans, Mark J. D. et al. (2012) Outcomes and moderators of a preventive school-based mental health intervention for children affected by war in Sri Lanka: a cluster randomized trial. World psychiatry : official journal of the World Psychiatric Association (WPA) 11(2): 114-22	- Non-OECD country
Vahabzadeh, Arshya, Keshav, Neha U., Abdus-Sabur, Rafiq et al. (2018) Improved Socio-Emotional and Behavioral Functioning in Students with Autism Following School-Based Smartglasses Intervention: Multi-Stage Feasibility and Controlled Efficacy Study. Behavioral sciences (Basel, Switzerland) 8(10)	- Treatment for ASD
van Starrenburg, Manon L A, Kuijpers, Rowella C M W, Kleinjan, Marloes et al. (2017) Effectiveness of a Cognitive Behavioral Therapy-Based Indicated Prevention Program for Children with Elevated Anxiety Levels: a Randomized Controlled Trial. Prevention science : the official journal of the Society for Prevention Research 18(1): 31-39	- Setting - delivered out of school hours
Vliek, L.; Overbeek, G.; de Castro, B.O. (2019) Effects of Topper Training on psychosocial problems, self-esteem, and peer victimisation in Dutch children: A randomised trial. PLoS ONE 14(11): e0225504	- Intervention not school-based
Wallace, Beatrice (2011) Studying the effects of the PASSPORT Program on self-esteem with students who have learning disabilities. Dissertation Abstracts International Section A: Humanities and Social Sciences 72(1a): 147	- Not full publication
Waters, A. M., Groth, T. A., Sanders, M. et al. (2015) Developing Partnerships in the Provision of Youth Mental Health Services and Clinical Education: a School-Based Cognitive Behavioral Intervention Targeting Anxiety Symptoms in Children. Behavior therapy 46(6): 844-855	- Universal intervention
Weineland, S., Ribbegardh, R., Kivi, M. et al. (2020) Transitioning from face-to-face treatment to iCBT for youths in primary care - therapists' attitudes and experiences. Internet Interventions 22: 100356	- Non-UK qualitative study
Wells, Amy E., Hunnikin, Laura M., van Goozen, Stephanie H. M. et al. (2020) Improving emotion recognition is associated with subsequent mental health and well-being in children with severe behavioural problems. European Child and Adolescent Psychiatry	- Study design - Not an intervention study
Werner-Seidler, Aliza, Perry, Yael, Calear, Alison L et al. (2017) School-based depression and anxiety prevention programs for young people: A systematic review and meta-analysis. Clinical psychology review 51: 30-47	- Study design - Systematic review

Study	Code [Reason]
Winther, Jo; Carlsson, Anthony; Vance, Alasdair (2014) A pilot study of a school-based prevention and early intervention program to reduce oppositional defiant disorder/conduct disorder. Early intervention in psychiatry 8(2): 181-9	- Whole school intervention
Wolpert, Miranda, Humphrey, Neil, Belsky, Jay et al. (2013) Embedding Mental Health Support in Schools: Learning from the Targeted Mental Health in Schools (TaMHS) National Evaluation. Emotional & Behavioural Difficulties 18(3): 270-283	- Whole school intervention
Wolpert, Miranda, Humphrey, Neil, Deighton, Jessica et al. (2015) An evaluation of the implementation and impact of England's mandated school-based mental health initiative in elementary schools. School Psychology Review 44(1): 117-138	- Whole school intervention
Woods, Barbara and Jose, Paul E (2011) Effectiveness of a school-based indicated early intervention program for Maori and Pacific adolescents. Journal of Pacific Rim Psychology 5(1): 40-50	- Not full publication Original publication was an unpublished dissertation
Woolf, A. (2008) Better Play Times training - Theory and practice in an EBD primary school. Emotional and Behavioural Difficulties 13(1): 49-62	- No extractable outcome data
Young, J. F., Jones, J. D., Sbrilli, M. D. et al. (2019) Long-Term Effects from a School-Based Trial Comparing Interpersonal Psychotherapy-Adolescent Skills Training to Group Counseling. Journal of clinical child and adolescent psychology : the official journal for the Society of Clinical Child and Adolescent Psychology, American Psychological Association, Division 53 48(supplement1): 362-s370	- Comparator - not usual education
Young, Jami F; Mufson, Laura; Gallop, Robert (2010) Preventing depression: a randomized trial of interpersonal psychotherapy-adolescent skills training. Depression and anxiety 27(5): 426-33	- Setting - delivered out of school hours
Young-Pelton, C. A. and Bushman, S. L. (2015) Using video self-modelling to increase active learning responses during small-group reading instruction for primary school pupils with social emotional and mental health difficulties. Emotional and behavioural difficulties 20(3): 277-288	- Study design - No control group
Zwaanswijk, M. and Kosters, M.P. (2015) Children's and parents' evaluations of 'FRIENDS for life', an indicated school-based prevention program for children with symptoms of anxiety and depression. Behaviour Change 32(4): 243-254	- Non-UK qualitative study

Economic studies

Reference	Reason for exclusion
Anderson, R., et al. (2014). Cost-effectiveness of classroom-based cognitive behaviour therapy in reducing symptoms of depression in adolescents: a trial-based analysis. Journal of Child Psychology and Psychiatry 55(12) 1390-1397.	NA
Anttila S, Clausson E, Eckerlund I, Helgesson G, Hjern A, Hakansson PA, et al. Methods of preventing mental ill-health among schoolchildren. The Swedish Council on Health Technology A; 05 May 2010 2010. Available from: http://www.crd.york.ac.uk/CRDWeb/ShowRecord.asp?ID=32010000471.	Paper not found
Bak PL, Midgley N, Zhu JL, Wistoft K, Obel C. The Resilience Program: preliminary evaluation of a mentalization-based education program. Frontiers in psychology. 2015;6:753.	No economic evaluation
Bannink R, Joosten-van Zwanenburg E, van de Looij-Jansen P, van As E, Raat H. Evaluation of computer-tailored health education ('E-health4Uth') combined with personal counselling ('E-health4Uth + counselling') on adolescents' behaviours and mental health status: design of a three-armed cluster randomised controlled trial. BMC public health. 2012;12:1083.	No economic evaluation
Beckman L, Svensson M. The cost-effectiveness of the Olweus Bullying Prevention Program: Results from a modelling study. Journal of Adolescence. 2015;45:127-37.	NA
Belfield C, Bowden AB, Klapp A, Levin H, Shand R, Zander S. The Economic Value of Social and Emotional Learning. Journal of Benefit-Cost Analysis. 2015;6(3):508-44.	Wrong outcomes
Borman GD, Rozek CS, Pyne J, Hanselman P. Reappraising academic and social adversity improves middle school students' academic achievement, behavior, and well-being. Proceedings of the National Academy of Sciences of the United States of America. 2019;116(33):16286-91.	No economic evaluation
Bowden AB, Shand R, Levin HM, Muroga A, Wang A. An Economic Evaluation of the Costs and Benefits of Providing Comprehensive Supports to Students in Elementary School. Prevention science : the official journal of the Society for Prevention Research. 2020;21(8):1126-35	NA
Bungay H, Vella-Burrows T. The effects of participating in creative activities on the health and well-being of children and young people: A rapid review of the literature. Perspectives in Public Health. 2013;133(1):44-52.	Systematic review
Cook PJ, Dodge K, Farkas G, Fryer RG, Jr., Guryan J, Ludwig J, et al. The (Surprising) Efficacy of Academic and Behavioral Intervention with Disadvantaged Youth: Results from a Randomized Experiment in Chicago. 2014	No economic evaluation
Das JK, Salam RA, Arshad A, Finkelstein Y, Bhutta ZA. Interventions for Adolescent Substance Abuse: An Overview of Systematic Reviews. Journal of Adolescent Health. 2016;59(2 Supplement):S61-S75.	Systematic review
Domitrovich CE, Durlak JA, Staley KC, Weissberg RP. Social-Emotional Competence: An Essential Factor for Promoting Positive Adjustment and Reducing Risk in School Children. Child development. 2017;88(2):408-16.	Systematic review
Ekwaru JP, Ohinmaa A, Tran BX, Setayeshgar S, Johnson JA, Veugelers PJ. Cost-effectiveness of a school-based health promotion program in Canada: A life-course modeling approach. PLoS ONE. 2017;12(5):e0177848.	Wrong outcomes

Reference	Reason for exclusion
Ford T, Hayes R, Byford S, Edwards V, Fletcher M, Logan S, et al. The effectiveness and cost-effectiveness of the Incredible Years Teacher Classroom Management programme in primary school children: results of the STARS cluster randomised controlled trial. Psychological medicine. 2019;49(5):828-42.	NA
Foster EM, Johnson-Shelton D, Taylor TK. Measuring time costs in interventions designed to reduce behavior problems among children and youth. American journal of community psychology. 2007;40(1-2):64-81.	Wrong study design
Foster EM. Costs and Effectiveness of the Fast Track Intervention for Antisocial Behavior. Journal of Mental Health Policy and Economics. 2010;13(3):101-19.	Wrong outcomes
Frick KD, Carlson MC, Glass TA, McGill S, Rebok GW, Simpson C, et al. Modeled cost-effectiveness of the Experience Corps Baltimore based on a pilot randomized trial. Journal of Urban Health. 2004;81(1):106-17.	Wrong patient population
Garmy P, Clausson EK, Berg A, Steen Carlsson K, Jakobsson U. Evaluation of a school-based cognitive-behavioral depression prevention program. Scandinavian journal of public health. 2019;47(2):182-89.	NA
Garmy P, Jakobsson U, Carlsson KS, Berg A, Clausson EK. Evaluation of a school-based program aimed at preventing depressive symptoms in adolescents. The Journal of school nursing : the official publication of the National Association of School Nurses. 2015;31(2):117-25.	No economic evaluation
George M, Taylor L, Schmidt SC, Weist MD. A review of school mental health programs in SAMHSA's national registry of evidence-based programs and practices. Psychiatric services (Washington, D.C.). 2013;64(5):483-6.	Systematic review
Grimes KE, Schulz MF, Cohen SA, Mullin BO, Lehar SE, Tien S. Pursuing cost-effectiveness in mental health service delivery for youth with complex needs. Journal of Mental Health Policy and Economics. 2011;14(2):73-86.	Wrong setting
Guo JJ, Wade TJ, Keller KN. Impact of school-based health centers on students with mental health problems. Public Health Reports. 2008;123(6):768-80.	No economic evaluation
Haynes NM. Addressing students' social and emotional needs: The role of mental health teams in schools. Journal of Health and Social Policy. 2002;16(1-2):109-23.	No economic evaluation
Herman PM, Chinman M, Cannon J, Ebener P, Malone PS, Acosta J, et al. Cost Analysis of a Randomized Trial of Getting to Outcomes Implementation Support of CHOICE in Boys and Girls Clubs in Southern California. Prevention science : the official journal of the Society for Prevention Research. 2020;21(2):245-55.	Wrong setting
Houri AK, Thayer AJ, Cook CR. Targeting parent trust to enhance engagement in a school-home communication system: A double-blind experiment of a parental wise feedback intervention. School psychology (Washington, D.C.). 2019;34(4):421-32.	No economic evaluation
Hoven CW, Doan T, Musa GJ, Jaliashvili T, Duarte CS, Ovuga E, et al. Worldwide child and adolescent mental health begins with awareness: a preliminary assessment in nine countries. International review of psychiatry (Abingdon, England). 2008;20(3):261-70.	No economic evaluation
Humphrey, N., et al. (2018). The PATHS curriculum for promoting social and emotional well-being among children aged 7-9 years: a cluster RCT. Public Health Research 6(10).	NA
Hunter LJ, DiPerna JC, Hart SC, Crowley M. At what cost? Examining the cost effectiveness of a universal social-emotional learning program. School psychology quarterly : the official journal of	NA

Reference	Reason for exclusion
the Division of School Psychology, American Psychological Association. 2018;33(1):147-54.	
Iemmi V, Knapp M, Brown FJ. Positive behavioural support in schools for children and adolescents with intellectual disabilities whose behaviour challenges: An exploration of the economic case. Journal of Intellectual Disabilities. 2016;20(3):281-95.	Wrong outcomes
Jones DE, Karoly LA, Crowley DM, Greenberg MT. Considering Valuation of Noncognitive Skills in Benefit-Cost Analysis of Programs for Children. Journal of Benefit-Cost Analysis. 2015;6(3):471-507.	Systematic review
Kautz T, Heckman JJ, Diris R, ter Weel B, Borghans L. Fostering and Measuring Skills: Improving Cognitive and Non-Cognitive Skills to Promote Lifetime Success. 2014	Systematic review
Kolbe LJ. School Health as a Strategy to Improve Both Public Health and Education. Annual Review of Public Health. 2019;40:443-63.	Systematic review
Kuklinski MR, Briney JS, Hawkins JD, Catalano RF. Cost-benefit analysis of communities that care outcomes at eighth grade. Prevention science : the official journal of the Society for Prevention Research. 2012;13(2):150-61.	Wrong setting
Kuo E, Vander Stoep A, McCauley E, Kernic MA. Cost-effectiveness of a school-based emotional health screening program. Journal of School Health. 2009;79(6):277-85.	Wrong outcomes
Kutcher S, Wei Y. Mental health and the school environment: Secondary schools, promotion and pathways to care. Current Opinion in Psychiatry. 2012;25(4):311-16.	Systematic review
Le LK-D, Esturas AC, Mihalopoulos C, Chiotelis O, Bucholc J, Chatterton ML, et al. Cost-effectiveness evidence of mental health prevention and promotion interventions: A systematic review of economic evaluationsAU. PLoS Medicine. 2021;18(5):e1003606.	Systematic review
Lee S, Kim C-J, Kim DH. A meta-analysis of the effect of school-based anti-bullying programs. Journal of child health care : for professionals working with children in the hospital and community. 2015;19(2):136-53.	No economic evaluation
Lee YY, Barendregt JJ, Stockings EA, Ferrari AJ, Whiteford HA, Patton GA, et al. The population cost-effectiveness of delivering universal and indicated school-based interventions to prevent the onset of major depression among youth in Australia. Epidemiology and Psychiatric Sciences. 2017;26(5):545-64.	NA
Legood R, Opondo C, Warren E, Jamal F, Bonell C, Viner R, et al. Cost-Utility Analysis of a Complex Intervention to Reduce School-Based Bullying and Aggression: An Analysis of the Inclusive RCT. Value in health : the journal of the International Society for Pharmacoeconomics and Outcomes Research. 2021;24(1):129-35.	NA
Long K, Brown JL, Jones SM, Aber JL, Yates BT. Cost Analysis of a School-Based Social and Emotional Learning and Literacy Intervention. Journal of Benefit-Cost Analysis. 2015;6(3):545-71.	No economic evaluation
Macdonald G, Livingstone N, Hanratty J, McCartan C, Cotmore R, Cary M, et al. The effectiveness, acceptability and cost-effectiveness of psychosocial interventions for maltreated children and adolescents: an evidence synthesis. programme NHTA; 17 Dec 2013 2016. Available from: http://www.crd.york.ac.uk/CRDWeb/ShowRecord.asp?ID=32013000983.	Systematic review
Mackenzie K, Williams C. Universal, school-based interventions to promote mental and emotional well-being: what is being done in the UK and does it work? A systematic review. BMJ open. 2018;8(9):e022560.	Systematic review
May J, Osmond K, Billick S. Juvenile delinquency treatment and prevention: A literature review. Psychiatric Quarterly. 2014;85(3):295-301.	Systematic review

Reference	Reason for exclusion
McCabe C. A systematic review of the cost effectiveness of universal mental health promotion interventions in primary schools. June 2007 2007.	Systematic review
McCabe C. Estimating the cost effectiveness of a universal mental health promotion intervention in primary schools: A preliminary analysis. Report to the NICE Public Health Interventions Programme. Leeds: Institute of Health Sciences, University of Leeds. 2007	NA
McDaid D, Park AL. Investing in mental health and well-being: findings from the DataPrev project. Health promotion international. 2011;26 Suppl 1:i108-39.	Systematic review
Merry SN. Prevention and early intervention for depression in young people - A practical possibility? Current Opinion in Psychiatry. 2007;20(4):325-29.	Systematic review
Mihalopoulos C, Vos T, Pirkis J, Carter R. The population cost-effectiveness of interventions designed to prevent childhood depression. Pediatrics. 2012;129(3):e723-e30.	Wrong setting
Modi S, Joshi U, Narayanakurup D. To what extent is mindfulness training effective in enhancing self-esteem, self-regulation and psychological well-being of school going early adolescents? Journal of Indian Association for Child and Adolescent Mental Health. 2018;14(4):89-108.	No economic evaluation
Moodie ML, Fisher J. Are youth mentoring programs good value-for-money? An evaluation of the Big Brothers Big Sisters Melbourne Program. BMC public health. 2009;9:41.	Wrong setting
Muratori P, Bertacchi I, Giuli C, Nocentini A, Lochman JE. Implementing Coping Power Adapted as a Universal Prevention Program in Italian Primary Schools: a Randomized Control Trial. Prevention science : the official journal of the Society for Prevention Research. 2017;18(7):754-61.	No economic evaluation
Murray NG, Low BJ, Hollis C, Cross AW, Davis SM. Coordinated school health programs and academic achievement: a systematic review of the literature. The Journal of school health. 2007;77(9):589-600.	Systematic review
O'Connor K, Wozney L, Fitzpatrick E, Bagnell A, McGrath P, Radomski A, et al. An internet-based cognitive behavioral program for adolescents with anxiety: Pilot randomized controlled trial. JMIR Mental Health. 2020;7(7):e13356.	Wrong study design
Organisation for Economic C-o, Development. PISA 2009 at a Glance. 2011:97.	No economic evaluation
Persson M, Wennberg L, Beckman L, Salmivalli C, Svensson M. The Cost-Effectiveness of the Kiva Antibullying Program: Results from a Decision-Analytic Model. Prevention science : the official journal of the Society for Prevention Research. 2018;19(6):728-37.	NA
Philipsson A, Duberg A, Moller M, Hagberg L. Cost-utility analysis of a dance intervention for adolescent girls with internalizing problems. Cost Effectiveness and Resource Allocation. 2013;11(1):4.	Wrong setting
Poitras VJ, Gray CE, Borghese MM, Carson V, Chaput J-P, Janssen I, et al. Systematic review of the relationships between objectively measured physical activity and health indicators in school-aged children and youth. Applied physiology, nutrition, and metabolism = Physiologie appliquee, nutrition et metabolisme. 2016;41(6 Suppl 3):S197-239.	Systematic review
Schmidt M, Werbrouck A, Verhaeghe N, Putman K, Simoens S, Annemans L. Universal Mental Health Interventions for Children and Adolescents: A Systematic Review of Health Economic Evaluations. Applied health economics and health policy. 2020;18(2):155-75.	Systematic review
Shackleton N, Jamal F, Viner RM, Dickson K, Patton G, Bonell C. School-Based Interventions Going beyond Health Education to	Systematic review

Reference	Reason for exclusion
Promote Adolescent Health: Systematic Review of Reviews. Journal of Adolescent Health. 2016;58(4):382-96.	
Shoemaker EZ, Tully LM, Niendam TA, Peterson BS. The Next Big Thing in Child and Adolescent Psychiatry: Interventions to Prevent and Intervene Early in Psychiatric Illnesses. The Psychiatric clinics of North America. 2015;38(3):475-94.	Systematic review
Simon E, Dirksen C, Bogels S, Bodden D. Cost-effectiveness of child-focused and parent-focused interventions in a child anxiety prevention program. Journal of Anxiety Disorders. 2012;26(2):287-96.	Wrong setting
Simon E, Dirksen CD, Bogels SM. An explorative cost-effectiveness analysis of school-based screening for child anxiety using a decision analytic model. European Child and Adolescent Psychiatry. 2013;22(10):619-30.	Wrong setting
Skre I, Friborg O, Breivik C, Johnsen LI, Arnesen Y, Wang CEA. A school intervention for mental health literacy in adolescents: effects of a non-randomized cluster controlled trial. BMC public health. 2013;13:873.	No economic evaluation
Spence SH, Sawyer MG, Sheffield J, Patton G, Bond L, Graetz B, et al. Does the absence of a supportive family environment influence the outcome of a universal intervention for the prevention of depression? International Journal of Environmental Research and Public Health. 2014;11(5):5113-32.	No economic evaluation
Stallard P, Phillips R, Montgomery AA, Spears M, Anderson R, Taylor J, et al. A cluster randomised controlled trial to determine the clinical effectiveness and cost-effectiveness of classroom-based cognitive-behavioural therapy (CBT) in reducing symptoms of depression in high-risk adolescents. Health Technology Assessment. 2013;17(47)	NA
Stallard P, Skryabina E, Taylor G, Anderson R, Ukoumunne OC, Daniels H, et al. A cluster randomised controlled trial comparing the effectiveness and cost-effectiveness of a school-based cognitive behavioural therapy programme (FRIENDS) in the reduction of anxiety and improvement in mood in children aged 9/10 years. programme NPHR; 18 Nov 2015 2015. Available from: http://www.crd.york.ac.uk/CRDWeb/ShowRecord.asp?ID=32015001174.	NA
Turner AJ, Sutton M, Harrison M, Hennessey A, Humphrey N. Cost-Effectiveness of a School-Based Social and Emotional Learning Intervention: Evidence from a Cluster-Randomised Controlled Trial of the Promoting Alternative Thinking Strategies Curriculum. Applied Health Economics and Health Policy. 2019	NA
Waddell C, Hua JM, Garland OM, Peters RD, McEwan K. Preventing mental disorders in children: a systematic review to inform policy-making. Canadian journal of public health = Revue canadienne de sante publique. 2007;98(3):166-73.	Systematic review
Wei Y, Kutcher S. International school mental health: global approaches, global challenges, and global opportunities. Child and adolescent psychiatric clinics of North America. 2012;21(1):11-vii.	Systematic review
Wellander L, Wells MB, Feldman I. Does Prevention Pay? Costs and Potential Cost-Savings of School Interventions Targeting Children with Mental Health Problems. Journal of Mental Health Policy and Economics. 2016;19(2):91-101.	NA
Wright B, Marshall D, Adamson J, Ainsworth H, Ali S, Allgar V, et al. Social Stories to alleviate challenging behaviour and social difficulties exhibited by children with autism spectrum disorder in mainstream schools: design of a manualised training toolkit and feasibility study for a cluster randomised controlled trial with nested qualitative and cost-effectiveness components. programme NHTA; 11 May 2012	Wrong study design

Reference	Reason for exclusion
2016. Available from: http://www.crd.york.ac.uk/CRDWeb/ShowRecord.asp?ID=32011001660.	